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NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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For the recommendations adopted by the United Nations Conference on Trade and Development at its first session, see *Proceedings of the United Nations Conference on Trade and Development*, vol. I, *Final Act and Report* (United Nations publication, Sales No. 64.II.B.11), pp. 17-65. For the resolutions, declarations and decisions adopted by the Conference at its second session, see *Proceedings of the United Nations Conference on Trade and Development, Second Session*, vol. I and Corr.1 and 3 and Add.1-2, *Report and Annexes* (United Nations publication, Sales No. E.68.II.D.14), annex I, pp. 27-58.

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ABBREVIATIONS

AfDB	African Development Bank
AsDB	Asian Development Bank
c.i.f.	Cost, insurance, freight
DAC	Development Assistance Committee (of OECD)
EEC	European Economic Community
EIB	European Investment Bank (of EEC)
FAO	Food and Agriculture Organization of the United Nations
FED	European Development Fund (of EEC)
f.o.b.	Free on board
GDP	Gross domestic product
GNP	Gross national product
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
IUOTO	International Union of Official Travel Organizations
OAS	Organization of American States
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
SDR	Special Drawing Rights
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme

EXPLANATORY NOTES

Use of a hyphen between years (e.g., 1965–1968), signifies the full period involved, including the beginning and end years.

An oblique stroke between years (e.g. 1965/1966) indicates a fiscal or financial year.

The following symbols are used in tables:

Three dots (. . .) indicate that data are not available or are not separately reported; a dash (—) indicates that the amount is nil or negligible.

Details and percentages in tables do not necessarily add to totals, because of rounding.

Part one

FINANCING

ECONOMIC GROWTH AND DEVELOPMENT FINANCING: ISSUES, POLICIES AND PROPOSALS

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report was circulated to the Conference as document TD/118, dated 4 January 1972. It will also be issued separately as a United Nations publication. The paper discusses issues of relevance to all developing countries. For questions concerning the least developed among the developing countries, see *Proceedings of the United Nations Conference on Trade and Development*, vol. IV, *General review and special issues* (United Nations publication, Sales No. E.73.II.D.7), "Special measures in favour of the least developed among the developing countries: action programme and selected data" (TD/135 and Supp.1). Issues arising in connexion with the international monetary situation (the subject of agenda item 9) are dealt with in *The international monetary situation: impact on world trade and development—report by the secretariat of UNCTAD* (TD/140/Rev.1) (United Nations publication, Sales No. E.72.II.D.18).

Chapter I

Mobilization of domestic resources

1. A study prepared by the secretariat¹ indicates that, on the whole, developing countries succeeded in improving their over-all growth record and their efficiency in the use of development resources in the second half of the 1960s.

2. Available estimates for 51 developing countries indicate that the average annual rate of growth of gross domestic product (GDP) increased from 4.9 per cent during the period 1960–1965 to 5.2 per cent during the period 1965–1970.² This acceleration in the rate of growth of GDP was associated with improvements in export performance. Thus the average annual rate of growth of exports in constant prices was 6.0 per cent during the second half of the 1960s, as compared with 5.6 per cent during the first half of the 1960s.

3. For the countries examined, the ratio of investment to GDP also improved significantly from about 16.0 per cent during 1960–1965 to 17.6 per cent during 1965–1970.

Similarly, the ratio of gross domestic savings to GDP registered a substantial increase between these periods, namely from 16.9 per cent to 18.2 per cent.

4. Indications are that part of the acceleration in the rate of growth of output may be attributable to more intensive and efficient utilization of the capital stock.

5. The study also indicates that, on the whole, developing countries succeeded in raising the ratio of tax revenue to GDP. For 37 developing countries for which data are available, the ratio of tax revenue to GDP during the period 1960–1969 was 14.7 per cent. This ratio registered an increase of 1.6 percentage points during the 1965–1969 period relative to the first half of the 1960s.³ Part of the increase was no doubt the result of better export performance. The Governments of most developing countries still depend heavily upon indirect taxation for raising additional resources for development. Income and property taxes represent, on the average, only a small proportion of total government revenues. Further improvement in the tax collection system and relatively greater emphasis on taxing property and personal and corporate incomes would be needed to generate a major increase in govern-

¹ See the report by the UNCTAD secretariat entitled "Mobilization of resources for development" (TD/118/Supp.1) (see p. 13 below).

² *Ibid.*, table 2. In part one, chapter I, averages are unweighted.

³ *Ibid.*, paras. 30–31 and table 7.

ment resources for development and would contribute significantly to a more equitable distribution of income.

6. In a number of developing countries impressive advances in irrigation, the use of commercial fertilizers and the introduction of new high-yielding varieties led to significant increases in agricultural production. Nevertheless, the expansion of food production failed to keep pace with the increase in population in about one-third of the countries examined.

7. During the period 1960–1969, manufacturing output increased, on the average, at a rate of 7.7 per cent per annum. On the other hand, industrial employment increased during the same period at a rate of 3.8 per cent per annum, a rate that was probably no higher than that of the increase of the labour force. It would appear, therefore, that a significant reduction in unemployment would require a rate of expansion of industrial output considerably higher than that observed in the past, as well as measures to absorb more manpower in other sectors, notably agriculture, construction and services.

8. It should be noted that only about half of the 51 developing countries studied recorded gains in the growth rates of output and exports in the second half of the 1960s. On the other hand, certain indicators that may be considered as reflecting the efforts of developing countries somewhat more closely suggest that a stepping-up of such efforts in the latter part of the 1960s may have been more widespread. Thus the savings-GDP ratio registered an increase in about two-thirds of the 51 countries examined. Similarly, 33 out of the 37 countries examined recorded an increase in the ratio of tax receipts to GDP between the first and second halves of the decade of the 1960s.⁴

Chapter II

The flow of financial resources

9. Total net flows of financial resources to developing countries from developed countries and multilateral institutions rose from \$7.0 billion in 1960 to \$14.0 billion in 1970, reflecting an annual average rate of growth of 7.2 per cent.⁵ It should be noted that these flows are calculated net of amortization and capital repatriation but not of interest, dividends and profits.

10. The prices of goods and services financed by these flows, however, also increased significantly during the decade. If account is taken of price increases, net flows in 1970, measured at 1960 prices, were of the order of \$11.8 billion. Thus total net flows of financial resources to developing countries, in constant prices, increased at an average annual rate of 5.4 per cent over the decade.

11. The composition of net flows underwent noteworthy changes during the 1960s, with private flows and flows from the multilateral institutions substantially increasing their share in the total flows to developing countries. Net private flows increased at an average annual rate

of 8.4 per cent, resulting in an increase in their share in total flows from 38.4 per cent in 1960 to 43.3 per cent in 1970. Private export credits, which accounted for one-third of total net private flows in 1970, increased rapidly at an average annual rate of 18.1 per cent.

12. Net flows from multilateral institutions also increased rapidly at an average annual rate of 17.1 per cent during the decade of the 1960s and in 1970 accounted for 10 per cent of total net flows to developing countries.

13. Net disbursements of official assistance from developed market-economy countries to developing countries increased moderately—at a rate of 4.8 per cent per annum—during the decade of the 1960s; in constant prices the increase was even less, namely 2.5 per cent per annum. The share of these flows in total flows—in current prices—declined from 55.6 per cent in 1960 to 44.8 per cent in 1970.

14. Viewed against the background of the capital needs of developing countries, the rates of growth of net flows recorded in the 1960s were inadequate. A study prepared by the secretariat⁶ indicates that, if the developing countries are to achieve acceleration in their rates of growth of GDP in line with the objectives of the International Development Strategy for the Second United Nations Development Decade, net resource transfers to developing countries should increase in the 1970s at a substantially higher rate than in the past. The study estimates that the external resource requirements of the developing countries would be broadly met if the 1 per cent and official development assistance targets provided for in the Strategy were achieved in accordance with the time schedule indicated.

A. THE 1 PER CENT TARGET

15. While all the countries that are members of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) have accepted the 1 per cent target set in the International Development Strategy,⁷ several countries have entered reservations with respect to the specified dates.

16. Australia, Belgium, France, the Netherlands and Portugal attained the volume target in 1970. Sweden has expressed its intention of achieving the target by the year 1972, and Norway by the year 1974. Japan and the United Kingdom have accepted the year 1975 as the target year.

17. The early attainment of the 1 per cent target would require a sharp reversal of the historical trend. The ratio of the total net flows from DAC member countries to their combined gross national product declined from 0.75 per cent during the early part of the 1960s to 0.70 per cent in 1969 and 0.71 per cent in 1970. If the 1 per cent target is to be achieved by all DAC member countries in 1975, the total net flow of resources from DAC member countries at 1970 prices would have to rise from \$14.1 billion to

⁴ *Ibid.*, tables 4, 5, 6 and 7.

⁵ For a more detailed discussion of the flow of financial resources to developing countries, see the report by the UNCTAD secretariat entitled "External development finance" (TD/118/Supp.2) (see p. 47 below).

⁶ *Trade prospects and capital needs of developing countries during the Second United Nations Development Decade* (United Nations publication, Sales No. E.72.II.D.11).

⁷ The International Development Strategy provides in paragraph 42:

"Each economically advanced country should endeavour to provide by 1972 annually to developing countries financial resource transfers of a minimum net amount of 1 per cent of its gross national product at market prices in terms of actual disbursements ... Those developed countries which are unable to achieve this target by 1972 will endeavour to attain it not later than 1975".

about \$26.0 billion between 1970 and 1975. It should be borne in mind that these flows include private investment and export credits.

18. While the socialist countries of Eastern Europe have declared their readiness to assist developing countries in their development efforts, they consider that the 1 per cent target does not apply to them.

19. Official statistics covering financial disbursements by the socialist countries of Eastern Europe and Asia to developing countries are not available. Commitments in 1970 are estimated at \$1.7 billion.

B. OFFICIAL DEVELOPMENT ASSISTANCE

20. From the standpoint of government commitments, particular importance attaches to the official development assistance target. Official flows are not only under the direct control of the Governments but are virtually the only resources⁸ supplied primarily for purposes of development and on concessional terms. In 1970, net disbursements of official development assistance from developed market-economy countries to developing countries and multilateral institutions amounted to \$6.7 billion, or to 0.34 per cent of the combined gross national product (GNP) of the former countries.

21. The International Development Strategy states in paragraph 43 that:

Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts to reach a minimum net amount of 0.7 per cent of its gross national product at market prices by the middle of the Decade.

Only Belgium, the Netherlands, Norway, Portugal and Sweden have accepted the target, while all other countries have entered reservations either with respect to the target itself or with respect to the date of its achievement.

22. France, while accepting the target in principle, has declared its intention to maintain the ratio at a level between 0.6 and 0.7 per cent, while Canada and the Federal Republic of Germany have accepted the 0.7 per cent target in principle but have not specified a date for achievement. In Denmark, substantial increases in disbursements of official assistance are envisaged under the medium-term assistance programme. Recent development programmes in Switzerland and the United Kingdom indicate an intention to raise the ratio of official development assistance to GNP, possibly to 0.4 per cent by 1975. While Australia has not accepted the target in principle, its official development assistance programme has been increasing rapidly and in 1970 amounted to 0.59 per cent of GNP, placing Australia in the third rank among the DAC member countries in this respect. In Austria and Italy, reviews of development assistance policies are under way. In spite of the rapid increase in the official development assistance of Japan, the ratio was maintained at a relatively low level during the past decade and in 1970 it amounted to 0.23 per cent. Recently, the Government of Japan expressed the inten-

tion of raising the ratio to at least the average level of DAC member countries as speedily as possible.⁹

23. Even if the above-mentioned countries were to step up their official development assistance substantially, the prospects for total flows to developing countries would remain in doubt in view of uncertainties regarding assistance from the United States, which accounted for 45 per cent of official development assistance flows from DAC member countries in 1970. The ratio of United States official development assistance to its GNP declined steadily over the decade of the 1960s and amounted to 0.31 per cent in 1970. On 15 August 1971, in the context of a series of measures to deal with both domestic and external economic problems, the President of the United States announced a 10 per cent cut in the appropriations envisaged in the aid bill submitted to the current session of the United States Congress.

24. On the basis of the above indications, the Chairman of DAC has drawn the following conclusions regarding the prospects for official development assistance (ODA):

There is no evidence just at present of the reversal of priorities required in several major countries to bring about the increases in disbursements that would be needed to meet the target by 1975. Thus, taken as a whole, the probability is that the percentage of GNP devoted to ODA will not change much in the next few years, though a slow upward movement is possible.¹⁰

25. Apart from the problem of achieving general agreement on a timely attainment of the target for official development assistance, certain other questions arise with respect to the expansion of bilateral aid programmes. As pointed out in the DAC Chairman's report,¹¹ even at present levels of aid commitments there are considerable difficulties in generating an adequate number of projects that meet present donor criteria for financing. Moreover, even if the required volume of projects were forthcoming, there is some question as to whether the present administrative capacities of both donors and recipients are such as to ensure that they could be implemented without lengthy delays. In view of this, some modification of current policies and practices should be given careful consideration. These include:

(a) the review by both donor and recipient countries of current project evaluation and negotiation procedures, with the object of standardizing and simplifying the latter;

(b) the allocation of additional aid resources to project preparation, and the reduction, whenever possible, of the present requirements for local participation;

(c) greater assistance to aid recipients in developing their administrative capacity to formulate and execute projects;

(d) in the context of the broader set of considerations that these issues raise, recognition of the fact that policies governing local-cost financing and the mixing of project and non-project assistance will have a bearing on donors' ability to translate rising levels of commitments into increased disbursements with a minimum of delay.

⁹ See summary records of the fifth session of the Committee on Invisibles and Financing related to Trade (TD/B/C.3/SR.92-110), p. 59.

¹⁰ See OECD, *Development Assistance, 1971 Review*, p. 50.

¹¹ *Ibid.*, pp. 56-58.

⁸ Other than a relatively small amount of grants from private voluntary agencies.

C. MULTILATERAL INSTITUTIONS

26. As was noted in paragraph 12 above, net flows from multilateral institutions increased rapidly and in 1970 amounted to \$1.4 billion. In part, this increase was made possible by substantial contributions of developed market-economy countries to multilateral agencies. Thus the share of contributions to multilateral institutions in total official development assistance rose from 11 per cent in 1961–1962 to 17 per cent in 1969–1970. This trend is in keeping with the recommendation of the Pearson Commission that aid-providers increase grants and capital subscriptions for multilateral development aid programmes to a minimum of 20 per cent of the total flow of official development assistance by 1975.¹²

27. It should be noted, however, that the rapidity of the approach to the above target ratio was associated with slow increases in the volume of total official development assistance. The above recommendation of the Pearson Commission should be taken in conjunction with the Commission's other recommendation that official development assistance should reach a level equivalent to 0.7 per cent of the GNP of developed countries by 1975.¹³ This would imply that by 1975 contributions to multilateral agencies should be equivalent to 0.14 per cent of the GNP of developed countries, and bilateral assistance to 0.56 per cent of GNP. In 1969–1970, contributions to multilateral agencies amounted to 0.06 per cent of GNP of developed market-economy countries and bilateral official development assistance to 0.28 per cent of their GNP.

Chapter III

The link

28. One means of increasing the flow of resources through multilateral institutions is to introduce a link between the creation of new international liquidity and the provision of additional development finance. The establishment of such a link has been advocated by two expert groups on international monetary issues convened by the Secretary-General of UNCTAD. The second Expert Group¹⁴ considered two main types of link: an "organic" link involving the allocation of special drawing rights (SDRs) to the International Development Association (IDA) or the regional development banks either directly by the International Monetary Fund (IMF) or by developed countries receiving SDRs; and a "non-organic" link involving the contribution of national currencies to IDA or the regional development banks by the developed countries, upon receipt of their SDR allocations.

29. The rationale of the proposal is that, while in the past countries have had to run export surpluses in order to acquire reserves, with the activation of SDRs they receive liquidity without incurring any costs. It is suggested that the beneficiaries of such a saving of resources should be the developing countries rather than the developed

countries. Through a link some of the savings accruing to the developed countries would be transferred to the developing countries. Advantage has also been seen, from the viewpoint of the international monetary system itself, in a process of reserve creation which involves a transfer of funds to developing countries. Such a transfer would expand the export markets of the developed countries as a whole, and would thereby reduce the danger of conflict among the developed countries in their search for larger markets.

30. Several objections have been raised to the proposal. It has been suggested that the creation of liquidity should not entail a transfer of real resources. It has also been argued that a link would constitute deficit finance and would be inflationary. Proponents of the scheme have pointed out that the accumulation of gold also involves a transfer of real resources—to gold producers—and have argued that the link would be no more inflationary than the mining of new gold. They have also suggested that to the extent that a link served to increase aggregate demand, its inflationary impact could be offset in the context of the fiscal and monetary policies pursued by Governments to manage their economies.

31. The objection has also been raised that if the size of SDR allocations were to have an automatic impact on the volume of assistance, considerations unrelated to global reserve needs would enter into the making of decisions on SDRs, and distort the decision-making process. Supporters have argued this would not be the case, since developing countries have recognized that the size of SDR allocations should be determined solely on the basis of monetary criteria.¹⁵

32. The link has met with the support of the Government of Italy, the Joint Economic Committee of the Congress of the United States and of the United Kingdom House of Commons Select Committee on Overseas Aid. The Commonwealth Finance Ministers meeting in September 1971 noted that, since the situation has now arisen in which the entire structure of the international monetary system will have to come under fundamental review, the possibility of providing more directly in any reform of this system for an automatic transfer of resources to developing countries should be considered.

Chapter IV

The debt problem

33. A note by the UNCTAD secretariat shows that reverse flows from developing countries on account of interest and amortization payments and profits amounted to approximately \$11 billion in 1969 while the inflow was of the order of \$18 billion. These figures imply that the net resource transfer to developing countries in 1969 on account of both public and private flows was around \$7 billion.¹⁶

¹² See *Partners in Development: report of the Commission on International Development* (London, Pall Mall Press, 1969), p. 215.

¹³ *Ibid.*, p. 152, recommendation 2.

¹⁴ *International monetary reform and co-operation for development: report of the Expert Group on International Monetary Issues* (United Nations publication, Sales No. E.70.II.D.2), chap. IV.

¹⁵ For a fuller discussion of the main issues raised by the link, see the report by the UNCTAD secretariat entitled "The link" (TD/118/Supp.4) (see p. 64 below).

¹⁶ See "The outflow of financial resources from developing countries: note by the UNCTAD secretariat" (TD/118/Supp.5) (see p. 71 below).

34. Data for eighty developing countries¹⁷ show that total external public indebtedness grew at an average annual rate of 14 per cent during the 1960s, and at the end of 1969 stood at about \$59 billion. During the same period, payments on account of interest and amortization increased at an average rate of 9 per cent per annum.¹⁸ Thus, in spite of an increase in the disbursements of official grants and loans including publicly guaranteed private loans—from \$8.8 billion in 1965 to \$10.2 billion in 1969—the net transfer of resources declined from \$5.4 billion to \$5.2 billion. If account is taken of increases in the prices of the goods and services financed by these resources, the decline in the net transfer of official and officially guaranteed grants and loans in real terms was of the order of 15 to 20 per cent over the period 1965–1969.

35. The decline in the net transfer of resources in current and constant prices is particularly disturbing when account is taken of the fact that, on the whole, the largest declines occurred in the lowest-income countries in Africa, and in India and Pakistan.¹⁹

36. Under the pressure of rapidly increasing debt service payments, a substantial number of countries have been compelled to seek renegotiation of debt during recent years. Moreover, projections prepared by the UNCTAD secretariat indicate that, in the absence of new measures to ease the terms of assistance and provide debt relief in appropriate circumstances, a larger number of developing countries may be faced with debt difficulties in the 1970s than in the 1960s. For example, while in 1969 only five of the sixty countries examined had a ratio of debt service payments to export earnings of more than 20 per cent, in 1980 the ratio of seventeen countries is expected to surpass the mark of 20 per cent.²⁰

37. It is worth noting that these results were obtained on the basis of rather optimistic assumptions about the prospects for export earnings of developing countries and the growth of development assistance at concessional terms. For example, it was assumed that the proportion of grants in total development assistance would remain constant although there has been a downward trend in this proportion in recent years. Moreover, it was assumed that official development assistance would grow at a rate higher than in the past and that the rate of growth of export credits would be curtailed considerably. If in the light of recent developments in international trade and development assistance more cautious assumptions had been made about the prospects for export earnings, grants and official assistance at concessional terms, the projections would have shown that debt servicing problems might be more widespread and acute in the 1970s than indicated in paragraph 35.

38. While in certain instances debt servicing difficulties have been caused by poor economic management, it would be erroneous to conclude that past debt crises were invariably due to mismanagement or laxity in developing

countries. Even when projects are carefully selected, and financing is made available at terms corresponding to project profitability, there is no certainty that debt servicing problems will not arise. Projects may exert serious pressure on the balance of payments long before their effects on the over-all capacity of the economy to generate export earnings or import savings are felt. Moreover, inability to raise export earnings and obtain adequate official development assistance may present policy makers with a difficult dilemma. The choice then lies between slowing down the development programme, with all the attendant economic, social and political implications, and seeking private credits on hard terms, thereby running serious risks of debt servicing difficulties later on. Neither of these choices can be regarded as satisfactory either from the standpoint of the individual country or from that of the international community.

39. These considerations indicate that the question of debt relief should be examined in the broader context of the development goals to which the international community is committed. Thus far the view has generally prevailed that debt relief should be limited to exceptional and critical cases, that relief should be the minimum needed to permit a resumption of debt service payments and that any cost to the creditors resulting from postponement of such payments should be paid for through additional interest at commercial rates. Moreover, the "short leash" policies often associated with debt relief operations are of dubious value to the lending countries in the long run, while they seriously curtail the freedom of the debtor countries to plan ahead with a reasonable sense of security. The interests of both creditor and debtor countries would be served best if the relationship between debt relief and aid were acknowledged and if the renegotiation of debt, on concessional terms when necessary, were regarded as open for consideration in appropriate cases even if there were no immediate danger of default. For example, if notwithstanding every effort to mobilize effectively its internal and external resources a country were unable to realize a volume of savings adequate for its development programme, or could not increase its import capacity to the minimum level required by that programme, that country should be regarded as a *prima facie* candidate for debt relief, irrespective of whether a crisis situation is imminent.

40. In this context, careful consideration should be given to the following recommendations of the Pearson Commission:²¹

1. Debt relief operations should avoid the need for repeated reschedulings and seek to re-establish a realistic basis for development finance.

2. When it is necessary to set limits on new export credits, equal attention should be given, where there is a sound development programme, to the possible need for concessional external assistance.

3. Aid-giving countries should consider debt relief a legitimate form of aid and permit the use of new loans to refinance debt payments, in order to reduce the need for full-scale debt negotiations.

41. In addition, consideration should be given to the following:

¹⁷ For more detailed discussion of the debt servicing problems on account of public debt, see the report by the UNCTAD secretariat entitled *Debt problems of developing countries* (United Nations publication, Sales No. E.72.II.D.12).

¹⁸ *Ibid.*, para. 12.

¹⁹ *Ibid.*, para. 13.

²⁰ *Ibid.*, para. 55.

²¹ See *Partners in Development: report of the Commission on International Development* (London, Pall Mall Press, 1969), pp. 166–167.

(a) Inclusion in loan agreements of a "bisque clause" whereby the debtor would, under certain conditions, be accorded some pre-agreed measure of relief, such as the postponement or waiving of amortization and interest payments.

(b) The creation of a suitable multilateral framework for examination of the debt problems of a country in the context of its over-all development plan and requisite net transfer of resources.

(c) The question of whether more formal institutional machinery is needed to conduct negotiations on a more systematic basis and to formulate standards and procedures to be applied in such negotiations, so that wide discrepancies do not develop in the treatment of countries in roughly similar situations, as appears to have occurred in the past.

Chapter V

The terms and conditions of assistance

42. A softening in the terms of assistance would significantly enhance developing countries' abilities to generate the foreign exchange required to underpin their development efforts. With respect to official flows, Conference decision 29 (II) included a proposal by developing countries and some developed countries for further easing of terms as follows:

Either

(a) Developed countries might provide 80 per cent or more of their official aid in the form of grants;

Or

(b) they might

- (i) provide 90 per cent of their official aid commitments as grants or loans at 2.5 per cent or less, with a repayment period of thirty years or more.
- (ii) attain a minimum grace period of eight years.

43. Broadly similar recommendations were made by the Pearson Commission, but the suggested norms referred to official development assistance²² only:

The terms of all official development assistance loans should henceforth provide for interest of no more than 2 per cent, a maturity of between 25 and 40 years, and a grace period of 7 to 10 years.²³

44. Responding to the need for softening the terms of assistance, the DAC member countries revised their own earlier norms and in 1969 adopted the "Supplementary Recommendation on Financial Terms and Conditions".²⁴ In both 1969 and 1970 a large number of DAC member countries met those targets and at the present time these targets do not exert significant pressure on more than a handful of countries to improve their terms. The DAC

terms are harder than the norms suggested in Conference decision 29 (II) or the recommendations of the Pearson Commission on terms and the question of further softening of the terms along the lines of the above recommendations deserves serious consideration. At the Tenth Annual High-Level Meeting of the Development Assistance Committee, it was recalled that in 1972 the DAC would, in the light of the first three years' experience, review the 1969 Recommendation on financial terms, including the provisions on harmonization.²⁵

45. Exact figures regarding the composition and the terms of financial flows from the socialist countries are not available. Incomplete data from various sources indicate that a large proportion of credits from socialist countries have maturities of ten years and interest rates of 3 per cent. Several interest-free government loans have also been made, with maturities varying from sixteen to thirty years. The over-all concessional element of financial flows from socialist countries would, of course, depend on the mixture of government loans and credits. It should also be noted that many of these loans are repayable either in the form of commodities from debtor countries or in their national currencies.

46. The rapid expansion of multilateral lending in recent years has required increased borrowing by these institutions from capital markets at commercial rates. The ordinary lending rates of the multilateral institutions currently range from 7¼ per cent to 8 per cent. The high cost of borrowing by these agencies is thus reflected in their lending rates, indicating the importance of finding means of softening their terms.

47. There are two principal methods available for accomplishing an easing of multilateral terms. The volume of funds available for lending at concessional terms, through IDA and the soft-loan windows of regional development banks, could be increased so as to bring about a rise in the share of concessional lending in total disbursements. In this connexion, it is important that efforts to provide the African Development Bank (ADB) with a soft-loan facility be brought to a successful conclusion as soon as possible. Given present expectations regarding the expansion of the regular lending of the International Bank for Reconstruction and Development (IBRD), current plans for replenishing IDA would be adequate only to maintain the ratio between regular IBRD loans and IDA credits: average terms on IBRD/IDA lending would probably not improve. Moreover, the third IDA replenishment had not yet been completed by the end of November 1971. As pointed out in chapter III, multilateral institutions would be provided with additional resources for concessional lending if a link were established between the creation of new international liquidity and additional development finance.

48. The establishment of an interest equalization fund would also serve to soften the terms of multilateral lending. In this scheme, the difference between the borrowing costs of multilateral institutions and the lower interest rates they would charge recipient countries would be covered by an interest equalization fund to be financed by the net income of the IBRD (and possibly of the IMF), and

²² The difference between official development assistance and official assistance consists of the exclusion from the former of (a) official bilateral transactions which are not concessional, or which are primarily export-facilitating in purpose; (b) net acquisition by Governments and central monetary institutions of securities issued by multilateral development banks at market terms. In 1970 official development assistance accounted for 86 per cent of total official assistance.

²³ See *Partners in Development: report of the Commission on International Development* (London, Pall Mall Press, 1969), p. 167.

²⁴ See OECD, *Development Assistance, 1969 Review*, annex III, p. 267.

²⁵ OECD Press release (PRESS/A(71)54), dated 22 October 1971.

by budgetary allocations of the developed countries. The proposal has been found technically sound provided that certain conditions relating to guarantees are met.²⁶ Moreover, a recent study by Harry S. Bell entitled "Some institutional aspects of a multilateral interest equalization fund"²⁷ has indicated that Governments in the developed market-economy countries have for some time been making use of interest subsidization as a financial technique to lower the costs of borrowing for a wide variety of domestic programmes and, in certain cases, of export credits to developing countries. In addition, the European Economic Community (EEC) has established arrangements for subsidizing interest rates on its loans to developing countries. The study also found that no insurmountable problems have been encountered by Governments in using interest subsidization techniques and in assuming multi-year budgetary commitments in respect of the interest subsidies involved.²⁸

49. As regards the conditions of assistance, in a number of recipient countries greater efficiency could be achieved if the share of non-project assistance in their total external financing were substantially increased.²⁹ Non-project assistance may be particularly effective in cases where a country has reached a stage of development that enables it to produce domestically a high proportion of the capital goods needed for its investment programme, while requiring an increasing volume of other imports, to sustain growth. In addition, where under-utilization of existing industrial capacity is due to an inability to finance imports of complementary inputs, non-project assistance may be more effective than project assistance, which would expand capacity still further. Non-project lending may be of particular importance for the least developed countries, notably in cases where an inadequate supply of freely usable foreign exchange threatens to disrupt the growth process.

50. While there has been some flexibility with regard to the share of non-project assistance in bilateral assistance, most multilateral assistance is limited to project lending.³⁰

Thus any increase in the share of assistance channelled through multilateral agencies may tend to accentuate existing rigidities in disbursing assistance.

51. In the light of the above, consideration should be given to increasing the share of non-project assistance in total flows to developing countries. In particular, the question should be considered whether multilateral lending institutions might take steps to increase the share of non-project lending in total multilateral assistance to the level prevailing for bilateral assistance, namely 22 per cent. Both bilateral and multilateral aid-givers may wish to consider the possibility of providing 40 per cent of their assistance in the form of non-project aid by the end of the decade, corresponding to the rise in the level of development and diversification of production structures expected in the course of the decade.

52. Assistance should not be tied to the import content of projects, since this practice tends to inflate import content and distort priorities in favour of import-intensive projects. It also leads to inadequate use of local resources and capacities. For international tenders, certain of the multilateral agencies such as the IBRD provide a margin of preference of 15 per cent for local suppliers but, as the Pearson Commission pointed out, the impact of this policy has been limited and yet there is persistent idle capacity for the production of many kinds of capital goods in developing countries. The Commission therefore recommended that aid-givers should remove regulations which limit or prevent contributions to the local costs of projects, and make a greater effort to encourage local procurement whenever economically justified.³¹

53. Some DAC member countries have recently taken measures to reduce the extent of aid tying by source. In addition, DAC member countries have reported that substantial progress has been made in drawing up a draft agreement on multilateral untying of development assistance.³² Early action on this front would improve the conditions of assistance significantly. To be fully effective, such an agreement would need to contain, *inter alia*, the following basic features:³³

(a) Procurement of goods and services financed by project or non-project lending and deemed suitable for international competitive bidding should be open to tendering by suppliers in all developed countries participating in the agreement as well as in all developing countries;

(b) Invitations to bid should be announced well in advance and should be given wide publicity, so that all eligible suppliers would have adequate time in which to prepare their bids;

²⁶ See IBRD, *The Horowitz Proposal: a Staff Report* (Washington, D.C., 1965) and "The Horowitz Proposal: report of the Group of Experts" (TD/B/C.3/23 and Corr.2).

²⁷ See *Official Records of the Trade and Development Board, Eleventh Session, Annexes*, agenda item 7, document TD/B/361/Add.1.

²⁸ *Ibid.*, para. 11.

²⁹ For more details see "External development finance: report by the UNCTAD secretariat" (TD/118/Supp.2) (see p. 47 below).

³⁰ The European Development Fund finances general development activities, and the proposed Special Programme of the ADB places emphasis on programme aid. Roughly 7 per cent of the cumulative total of loans by the IBRD and IDA have been in the form of general development and programme loans, but about one-third of this has been allocated to Europe and Australasia. The other multilateral agencies are exclusively project lenders. As regards the IBRD/IDA, in a recent policy decision the Executive Directors "accepted that programme lending was appropriate in special circumstances and took the view that in principle, subject to specific demonstration in each case, such circumstances might arise when a borrowing country had a satisfactory development programme and was following sound economic and financial policies, but could not obtain the external resources required to support the programme by borrowing only for specific projects." (See IBRD-International Development Association, *Annual Report 1971*, page 29.)

³¹ See *Partners in Development: report of the Commission on International Development* (London, Pall Mall Press, 1969), p. 177.

³² In the context of a series of measures to deal with economic problems, taken in August 1971, the United States decided to postpone participation in such an arrangement. However, the DAC Chairman has expressed the view that "as soon as current international economic negotiations have been brought to a successful conclusion, work will be resumed in DAC to resolve the remaining obstacles to a wide and generous agreement" (see OECD, *Development Assistance, 1971 Review*), p. 12.

³³ See below, "External development finance: report by the UNCTAD secretariat", paras. 51 and 52.

(c) The choice of projects and of consultants and consulting firms and the procurement specifications and standards should be such as to ensure that the underlying purpose of the agreement is not frustrated by indirect informal tying.

54. The developing countries would stand to benefit further if the agreement embodied some flexibility in procurement from sources of supply in the recipient country and if all donors granted a margin of preference to local suppliers participating in an open international tender that is at least equal to, and preferably greater than, the 15 per cent margin presently allowed by certain of the multilateral agencies.

Chapter VI

Private capital flows

55. It is generally recognized that, under appropriate conditions, private flows can play an important role in promoting the development of developing countries.

56. While commercial credits are extended to developing countries primarily for the purpose of promoting the exports of developed countries, prudent use of this credit instrument could be of considerable help in the financing of import requirements. However, in certain instances, excessive reliance on export credits for the purpose of financing long-term development programmes has led to debt crises. Although the Governments of developing countries have a primary responsibility for limiting the use of commercial credits to the financing of appropriate activities, the Governments of developed countries could provide more effective surveillance over the terms and conditions on which their exports to developing countries are financed. Moreover, the system of commercial credits would benefit from active co-operation among national and multilateral institutions with respect to collection and dissemination of information on terms of commercial credits and prices at which goods are supplied. Attention is also drawn to the possibility of increasing the role of buyers' credits, which generally provide importers with certain cost advantages as compared with suppliers' credits.⁵⁴

57. Net portfolio investment increased rapidly during the 1960s. An increasing number of developing countries were successful in raising capital by issuing bonds in capital markets, but this source of finance is still limited to a dozen of the relatively more advanced developing countries. Although the interest rates now prevailing in the capital markets are quite high, a number of developing countries are finding it possible to service the debt. But the procedures involved in issuing bonds in foreign capital markets are such that many developing countries find it difficult to make effective use of this credit instrument.

58. Foreign private direct investment can play an important role in transferring capital and skills to the

developing countries. There are none the less wide differences of opinion on the impact private foreign investment has had in the past, and on the role it might play in the future. The question whether a particular private foreign investment project is socially profitable for the host country, and if so to what extent, cannot be determined *a priori*, but requires careful analytical investigation in the circumstances of each case. Projects have to be reviewed in the light of their consistency with the development objectives of the host country, including such factors as the growth and distribution of income, the expansion of employment opportunities, and the absorption of new skills and technology. In countries experiencing foreign exchange stringency, special attention has to be paid to the impact of projects on the balance of payments.

59. The interests of the Governments of host countries and foreign companies may not be the same, and as a result conflicts have arisen between the parties involved.⁵⁵ If agreement is to be reached between host countries and foreign companies and is to remain satisfactory to both sides, it must be characterized by stability and flexibility. Host countries are entitled to establish the ground rules for foreign investment, and should do so in a manner that makes it quite clear to foreign investors where they stand as regards such questions as whether there are any sectors of the economy in which foreign investment is not welcome; what restrictions will be applied to transfers of profit and repatriation of capital; at what rates taxation will be levied; what degree of local participation in ownership and control is envisaged, either immediately or in the future; and what may be required by way of employment of local personnel and use of locally produced inputs. Once the framework has been established, reasonable stability is necessary if investments are to operate as planned, and the legitimate expectations of foreign companies are to be fulfilled. Stability should not, of course, be confused with rigidity, and it would be unrealistic to expect rules to remain immutable. But while Governments are free to change the ground rules affecting private foreign investment, they have to weigh the gains achieved thereby in relation to the prospects of any future collaboration with private foreign capital that they may have in mind. In these as in other respects, what is necessary is that Governments and foreign investors should have regard to each others' legitimate interests.

60. There is a need for more exchange of information concerning the experience of various countries in dealing with foreign investors. In many cases, countries have difficulty in reacting to specific proposals for foreign investment, or to requests by foreign companies for particular conditions to be applied regarding profit remittances, taxation, local borrowing, etc., because they have no basis of experience from which to judge what course of action might be reasonable and mutually satisfactory in the particular circumstances of each case. There is, therefore, a case for establishing a clearing-house of information on the policies and practices of countries in dealing with private foreign investment as well as on the objectives and require-

⁵⁴ See "Yugoslav experience with suppliers' credits: a study by Irving B. Kravis, Ivo Fabinc and Miljko Trifunovic" (TD/B/C.3/78) and "The use of buyers' credits by developing countries: report prepared at the request of the UNCTAD secretariat by Sherwood M. Fine" (TD/B/C.3/93).

⁵⁵ For a general discussion of the problems involved, see "Private foreign investment in its relationship to development: report by the UNCTAD secretariat" (TD/134) (see p. 76 below).

ments of foreign investors in considering whether to invest in particular developing countries.

61. The IBRD has under consideration a multilateral investment insurance scheme which would seek to provide guarantees against risks of a non-commercial nature.³⁶

Chapter VII

Compensatory finance and supplementary financial measures

62. It is generally accepted that instability in export earnings of developing countries may affect their development plans adversely. For one thing, the opportunity cost of holding adequate "owned" reserves to offset wide and unforeseen fluctuations in export earnings is high in the case of developing countries. At the same time, the regular drawing facilities of the IMF generally fall short of the needs of a country facing export shortfalls.

63. The compensatory financing facility established by the IMF in 1963 and expanded in 1966 is intended as a special balance-of-payments support to those countries that experience payments difficulties because of adverse movements in their export earnings. As of November 1971, total drawings under this facility amounted to \$316 million. The largest recourse to this facility in a single year occurred in 1967, when ten countries drew nearly \$200 million. In 1968, seven countries drew \$68 million, but since then its use has been more limited, with two countries drawing \$11 million in 1971 up to November. As of November 1971, a total of \$90 million in drawings under this facility remained outstanding. About half of the repurchases that have occurred were made in response to a recovery in export earnings.

64. The recent decline in developing countries' use of the compensatory financing facility reflects the exceptional upsurge in the export earnings of primary producers in 1969-1970, and the continuation of relatively high earnings in 1971. More extensive use may take place if the anticipated slackening in the growth of trade materializes. This, in turn, focuses attention on certain limitations of the facility in its present form, and on suggestions for its improvement.

65. It has been suggested,³⁷ for example, that the full amount of the facility—equivalent to 50 per cent of quota—should be available for drawing in one year. Moreover, there seems to be an asymmetry in the rules concerning repayment. When a country's exports recover rapidly to a point above the medium-term trend, partial or total repayment is encouraged even before the expiration of the 3-5 year repayment period. But the opposite does not apply—repayment falls due at the prescribed time even though exports have not recovered from their shortfall. Finally, there are strong grounds for adjusting the criteria governing eligibility for compensatory financing so as to take

adverse movements in import prices into account. This aspect has gained additional importance in view of the currency appreciations associated with the present international monetary crisis. The facility could readily be adapted to provide relief for countries that face difficulties because of currency realignments by important trading partners.

66. While the above suggestions would enhance the usefulness of the compensatory financing facility, there remain cases where adverse movements in export earnings prove to be of such a nature and duration that they cannot be adequately dealt with by short-term balance-of-payments support. To prevent such occurrences from disrupting countries' development programmes is the objective of proposals for supplementary financing.³⁸

67. The recommendation contained in annex A.IV.18 to the Final Act of the first session of the Conference set forth the objective and principles of such a scheme. The Conference invited the IBRD to study the feasibility of a scheme consistent with the stated objective and principles.

68. In the light of the report prepared by the IBRD staff,³⁹ the question of supplementary financial measures was examined by the Inter-governmental Group on Supplementary Financing and by various UNCTAD bodies. In decision 30 (II), the Conference at its second session reaffirmed the objective of its previous recommendation, listed the issues which remained to be settled and requested the Inter-governmental Group on Supplementary Financing to attempt to resolve them.

69. In pursuance of Conference decision 30 (II), the Inter-governmental Group on Supplementary Financing attempted to clarify certain aspects of the IBRD staff scheme and examined alternatives to it. The report of the Group on its fifth session, submitted to the Trade and Development Board at its ninth session, concluded that:

(a) Arrangements for supplementary finance can be designed to help meet the problem of disruption of development arising from adverse movements in the export proceeds of developing countries.

(b) Supplementary financial measures should be administered within the IBRD Group in consultation with IMF.

(c) In the operation of any supplementary financial measures discretion should be left to the agency so as to ensure the best possible adaptation to the merits and needs of each case in meeting the objectives expressed in paragraph 2 of Conference decision 30 (II). It can be expected that on the basis of the experience gained in the operation of supplementary financial measures, appropriate objective criteria will be developed so as to provide reasonable assurance to help to protect a country's development plan or programme against the effects of export shortfalls. The agency would take into account the development plan, including its targets, and all information relevant to the objectives of supplementary financial measures.

(d) Any understandings involved in the operation of supplementary financial measures should be no different in character from those which now arise in the relationships between IBRD and member countries.

³⁶ *Ibid.*, paras. 68-72.

³⁷ See *The international monetary situation: impact on world trade and development—report by the secretariat of UNCTAD...*, paras. 125 and 126.

³⁸ For further details, see the report by the UNCTAD secretariat entitled "Supplementary financial measures" (TD/118/Supp.7).

³⁹ IBRD, *Supplementary Financial Measures: a study requested by the United Nations Conference on Trade and Development, 1964* (Washington, D.C., December 1965).

(e) It is the general consensus of the Group that it would be of little value merely to divert available resources from basic development finance for the purpose of supplementary financing. The cost of a discretionary scheme cannot be estimated pending the preparation of a scheme.⁴⁰

70. In resolution 60 (IX) the Trade and Development Board expressed its agreement with the above conclusions of the Inter-governmental Group and invited the competent organs of IBRD to consider working out arrangements for supplementary financing and, if appropriate, to consider introducing them. At its tenth session the Board was, however, informed in a letter dated 14 August 1970 sent by the President of IBRD to the Secretary-General of UNCTAD⁴¹ that, owing to the very limited support among potential donors for additional contributions for supplementary finance, the Bank had decided to defer consideration of a scheme.

71. The Trade and Development Board responded with a declaration⁴² to the effect that it was necessary for an effort to be made to work out the details of a discretionary scheme of supplementary financing that could be implemented within the IBRD Group and to assess the probable cost of such a scheme. Once that was done, member countries of the IBRD would be in a position to judge whether the additional resources required might be made available. The Board expressed the hope that the IBRD would give further consideration to the adoption of supplementary financial measures at the earliest practicable opportunity, and that in the meantime it would pursue its efforts at working out a discretionary scheme of supplementary financing.

72. In a written communication of 4 May 1971 to the Secretary-General of UNCTAD⁴³ the President of IBRD outlined the Bank's effort in

dealing with the special problems that arise because of the negative long-term price trends in some commodities of which they [the developing countries] are major producers and the tendency of the prices of certain commodities to fluctuate widely.

The Bank shared the view expressed in UNCTAD since the proposal for a scheme of supplementary financial measures had first been put forward at the first session of the United Nations Conference on Trade and Development, that it would be desirable to deal separately with that single aspect of the commodity problem only if additional funds were provided for the purpose without diverting resources from basic development finance. The President added:

The lack of any reasonable prospect of such additional funds has led the management and some of the Executive Directors to consider that we should defer further detailed studies within the Bank of such a scheme. Other Directors, on the other hand, would wish further detailed studies to be undertaken immediately. As there is no consensus, we shall keep the matter under review.

The President of IBRD concluded:

The Executive Directors have therefore authorized me to assure you that, should a developing country member of the Bank, for reasons outside its control, experience an unexpected shortfall in its export earnings which threatens to disrupt the implementation of its development programme, the Bank Group would examine the case on its merits with a view to determining whether and how it could shape or modify its lending and other operations for that country in such a way as to help the country to overcome the difficulties.

73. The question was considered at the eleventh session of the Trade and Development Board and at the fifth session of the Committee on Invisibles and Financing related to Trade. At the latter session the developing countries issued the "Joint statement of the developing countries members of the group of 77 on supplementary financial measures".⁴⁴

⁴⁰ See *Official Records of the Trade and Development Board, Ninth Session, Supplement No. 6* (TD/B/260/Rev.1), para. 34.

⁴¹ See *Official Records of the General Assembly, Twenty-fifth session, Supplement No. 15* (A/8015/Rev.1), part two, annex V.

⁴² *Ibid.*, para. 203.

⁴³ *Official Records of the Trade and Development Board, Eleventh Session, Annexes, agenda item 7, document TD/B/353.*

⁴⁴ See *Official Records of the Trade and Development Board, Twelfth Session, Supplement No. 2, annex II.*

MOBILIZATION OF RESOURCES FOR DEVELOPMENT

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report, which is a revised version of document TD/B/C.3/95 and Corr.1-3, was circulated to the Conference as document TD/118/Supp.1, dated 20 December 1971, and TD/118/Supp.1/Corr.1, dated 16 March 1972. It will also be issued separately as a United Nations publication.

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Summary

1. This study, prepared in response to suggestions made at the fourth session of the Committee on Invisibles and Financing related to Trade,¹ addresses itself mainly to the following interrelated issues:

(a) To what extent have the developing countries succeeded in mobilizing resources for development?

(b) Whether efficiency in the use of available resources has improved.

2. Part one of the study examines the relative progress of developing countries with respect to increasing the resources mobilized for development and improving the efficiency of their use during the period 1965-1970 as compared to the period 1960-1965. The comparisons are based largely on selected quantitative indicators relating to growth rates of gross domestic product (GDP) and export earnings, investment, domestic saving and tax ratios to GDP, aggregate capital-output ratios, the development of agriculture, labour employment and productivity of the manufacturing sector and price stability.

3. Part two of the study examines in greater detail developments in the agricultural and manufacturing sectors on the basis of more disaggregated indicators and discusses the problems involved in assessing government efforts in maintaining price stability.

4. The major conclusions that emerge from an examination of selected development indicators may be summarized as follows:

- (i) While the experience of countries varied greatly, about half of the developing countries succeeded in accelerating their rates of growth of income between the periods 1960-1965 and 1965-1970. Excluding the cases of seven countries that were adversely affected by regional hostilities and internal strife, the remainder of the developing countries registered, on the average, an acceleration of the rate of growth of their incomes during the period 1965-1970 by 0.3 percentage points.
- (ii) There was a pronounced tendency for changes in the rates of growth of income to be positively associated with changes in the export performance of developing countries, measured in terms of rates of growth of exports.
- (iii) Changes in the rates of growth of income were associated with changes in capital-output ratios in the opposite direction, suggesting the possibility that income gains during the second half of the 1960s might have been associated with over-all improvements in resource utilization. If the seven countries mentioned above are excluded, the ratio of investment to income increased between 1960-1965 and 1965-1970 by 1.6 percentage points.
- (iv) The average ratio of domestic savings to income increased significantly from 15.9 per cent during the period 1960-1965 to 18.1 per cent during the period 1965-1970. A major part of this increase relates to gains registered by only eight countries.

¹ See *Official Records of the Trade and Development Board, Tenth Session, Supplement No. 4* (TD/B/318), chap. IV. For a methodological analysis of the issues involved in analysing the mobilization of resources for development, see *The measurement of development effort* (United Nations publication, Sales No. E.71.II.D.4).

- (v) The ratio of total tax revenues to income increased by 1.7 percentage points. Most Governments of developing countries still depend heavily upon indirect taxation as a means of raising resources for development.
- (vi) During the 1953–1968 period, developing countries made substantial efforts to raise the technical level of their agricultural sector. Nevertheless, only about 65 per cent of the countries sampled succeeded in raising the rate of growth of agricultural output above the rate of increase in their population.
- (vii) During the period 1950–1969, in a large number of developing countries industrial development proceeded at a rapid pace, but the rate of increase of industrial employment was probably no higher than the rate of expansion of the labour force.
- (viii) In most developing countries the rate of increase in prices in the 1960s was no greater than in the developed countries. High rates of inflation did, however, occur in a relatively small number of developing countries: most of these succeeded in moderating inflation in the second half of the 1960s.

Part one — Mobilization of resources in the light of selected indicators

Chapter I

The choice of indicators

5. Unambiguous comparisons of the effort made by developing countries to mobilize resources for development would call for indicators that could distinguish clearly between contributing factors that lie outside the control of the Governments and those that reflect genuine effort. An earlier study of this subject by the UNCTAD secretariat² noted the difficulties in developing such indicators. Further work on this issue has confirmed that it would be futile to seek to draw a sharp distinction between genuine "effort" and extraneous factors that have affected the relative "success" of a country.

6. A more fruitful line of approach would be to examine both the size of resources mobilized for development and the degree of efficiency with which these resources are used. In principle, it would be possible to devise indicators for this purpose, and some progress along these lines has been made and reported in this study, but more work on methodology and considerable improvements in statistical information would be required before a systematic analysis could be attempted over a broad spectrum of countries and sectors.

7. The selection of indicators for this study has been influenced by availability of information. A possible general shortcoming of these indicators may be that they often reflect the combined effect of both size and efficiency of mobilized resources, but whenever possible an effort has been made to identify the probable contribution of each factor separately. From the standpoint of measuring success under given external conditions, the merging of these two factors into one indicator is of no consequence. For example, in the context of a growth indicator, it is a matter of indifference whether a given increase in agricultural production results from an expansion of the cultivated area or from an increase in yield, but the general consensus seems to be that these alternative methods of increasing production should be given different weights in evaluating over-all performance. A brief description of the indicators follows.

8. *The rate of growth of GDP.* It is generally agreed that the rate of growth of GDP is the best single indicator reflecting the combined effects of resource mobilization and efficiency in their use. It is also recognized that in certain instances this indicator may be misleading unless taken in conjunction with indicators relating to other development and social goals which, in the short run, may be alternatives rather than complements to GDP growth. For example, measures with respect to diversification of production, re-structuring the economic and institutional framework, acceleration of health and education programmes, more equitable distribution of income, etc., may have an unfavourable effect on the short-run rate of growth of GDP. However, the changes which these measures are intended to accomplish are not only desired *per se* but are also pre-requisites for long-run self-sustained

development. Unfortunately, information on these measures is not available on a systematic basis for a large number of developing countries and their quantitative impact on development is still inadequately understood. In view of these difficulties, the indicator of GDP growth can be supplemented, at present, only by qualitative information about these fundamental objectives of and requirements for development.

9. *Export performance.* The rate of growth of the volume of exports could provide useful information about the role of world trade in economic development, and the degree to which resources were mobilized to realize faster export growth. Moreover, an examination of factors that determine the rate of growth of exports could provide a useful insight into the kind of resources mobilized for exports. From this standpoint, the rate of growth of a country's exports may be viewed as the outcome of the combined effect of three factors, namely the growth of world demand for the country's traditional exports, its competitiveness in world markets for these products³ and the degree of diversification of its export structure.

10. *Investment: its efficiency and financing.* In the long run, the rate of economic development depends, among other things, upon the distribution of current output between consumer and producer goods. Thus the gross domestic investment-GDP ratio is an indicator of some importance. Since a rise in the investment-GDP ratio might be due in part to external financing, the ratio of domestic saving to GDP is often used as an indicator of the effort made by a country in bringing about a relative increase in capital formation. While the latter ratio corrects for the direct influence of foreign capital inflow on capital formation, it is not necessarily a valid measure of the domestic effort to mobilize resources for development since it is sensitive to exogenous factors that do not reflect effort.⁴

11. Notwithstanding these shortcomings, the International Development Strategy for the Second United Nations Development Decade has included, in paragraph 17, the objective of raising the savings ratio by one-half of 1 per cent per annum, and this calls for an evaluation of recent trends in this ratio. At the same time, in view of the dominant role that the Government plays in development, it is important to examine the government contribution to domestic savings through tax policy. For this purpose, the ratio of tax revenues to GDP is used.

12. While the indicators discussed above provide a basis for evaluating the magnitude of resources mobilized for capital accumulation, they do not indicate the efficiency with which resources are used. For the latter purpose, the marginal capital-output ratio is often used. As shown in the earlier study, inter-country comparisons of capital-output ratios cannot provide a basis for measurement of

² See *The measurement of development effort...*

³ A country may increase its share in world exports of a particular commodity by expanding its volume of exports faster than the other supplying countries. However, to the extent that the world demand for this product is price inelastic, earnings from all exporters taken together may be reduced.

⁴ See *The measurement of development effort...*

efficiency. However, in certain instances, it may be illuminating to examine changes in the capital-output ratio of a country between two relatively stable periods.

13. *Performance of the agricultural and manufacturing sectors.* Sectoral indicators relating to the performance of these sectors are discussed in detail in Part two of the study. For purposes of the over-all review provided in the next chapter, the rates of growth of both agricultural and manufacturing output are shown as supplementary information to the rate of growth of GDP. Moreover, in view of the importance attached to the issue of unemployment in developing countries, the rate of growth of employment in the manufacturing sectors is also shown.

14. *Price stability.* Price instability might adversely influence mobilization of resources. The impact of price instability on mobilization of resources is discussed in detail in Part two, chapter III. In the over-all review provided in the next chapter, changes in the cost of living and other related indices are used to illustrate the varying experience of developing countries in this respect.

Chapter II

Progress in the mobilization of resources in recent years

15. Table 1 summarizes the experience of fifty-eight developing countries during the decade of the 1960s. For purposes of exposition, these countries have been divided into several groups.⁵ Ranges of growth rates of GDP during the 1960s were used as a basis for classifying countries into five major groups.

16. While the unweighted average rate of growth of GDP during the period 1960-1970 was 5.3 per cent per annum, experience varied widely from country to country. Thus thirteen countries experienced annual growth rates of 6.5 per cent and above but in six countries the growth rate was hardly above that of population.

⁵ For country data, see annex table.

TABLE I
Annual average rates of growth of GDP and related indicators, 1960-1970^a
(Percentages)

Country	Number of countries	Rate of growth of GDP	Rate of growth of exports	Indicators relating to capital formation and its financing			
				Investment-GDP ratio	Incremental capital-output ratio	Domestic saving-GDP ratio	Marginal saving rate
Developing countries ^b	58	5.3	6.6	17.1	3.9	16.9 ^c	23.0 ^d
Classification of countries on the basis of GDP growth rates ^e							
Growth rates of 6.5% and above	13 ^d	7.6	9.9	19.4	2.5	20.7 ^c	33.5 ^f
Growth rates of 5.0-6.4%	14	5.5	6.2	15.7	2.6	20.9	20.6
Growth rates of 4.0-4.9%	13	4.4	5.3	17.1	3.8	16.2	22.0
Growth rates of 3.0-3.9%	11	3.6	3.3	17.2	4.8	12.4	15.0
Growth rates of 2.9% and below	6	1.8	2.6	12.4	8.7	9.8	19.2

Country	Indicators relating to the tax effort		Rate of growth of agricultural output	Rate of growth of manufacturing output	Rate of growth of industrial employment	Rate of increase of cost-of-living index
	Taxes-GDP ratio	Income elasticity of taxes				
Developing countries ^b	14.7	1.3	3.3	7.7	3.8	9.4
Classification of countries on the basis of GDP growth rates ^e						
Growth rates of 6.5% and above	13.7	1.3	4.5	11.6	4.6	3.5
Growth rates of 5.0-6.4%	12.6	1.2	3.7	6.9	2.9	6.4
Growth rates of 4.0-4.9%	14.8	1.3	2.5	6.6	3.2	7.8
Growth rates of 3.0-3.9%	17.6	1.2	2.4	5.4	3.2	6.2
Growth rates of 2.9% and below	19.5	1.1	1.6	... ^g	... ^g	... ^g

Source: See annex table.

^a Figures refer to unweighted averages of countries included. Data relating to taxes, agricultural and manufacturing output, industrial employment and prices are not available for all countries of the sample and the averages shown relate to a selected number of countries in each group. See annex table.

^b Total includes Libyan Arab Republic, which is excluded from countries having growth rates of 6.5% and above.

^c For country coverage of the groups, see annex table.

^d Excludes Libyan Arab Republic.

^e Excludes Jordan.

^f Excludes Israel and Jordan.

^g Estimates are not shown since available data refer to a few countries only.

TABLE 2

Changes^a in growth rates of GDP and related variables between the periods 1960–1965 and 1965–1970^b

<i>Countries grouped according to changes in GDP growth rates from 1960–1965 to 1965–1970</i>	<i>Number of countries</i>	<i>Rate of growth of GDP 1960–1965</i>	<i>Changes in rate of growth of GDP</i>	<i>Changes in growth rate of export earnings</i>	<i>Changes in investment-GDP ratio</i>	<i>Changes in capital-output ratio</i>	<i>Changes in domestic savings-GDP ratio</i>	<i>Changes in tax-GDP ratio^c</i>
Group I — Changes by 2 percentage points and above	10	3.9	3.2	4.8	3.4	-1.8	2.0	4.4
Group II — Changes between 1 and 1.9% points	5	3.7	1.5	3.1	1.1	-1.3	-2.1	0.1
Group III — Changes between 0 and 0.9% points	13	4.6	0.5	1.3	1.5	-0.2	2.6	1.4
Group IV — Changes between -0.1 and -0.9% points	10	5.7	-0.4	-1.9	2.6	0.8	2.3	1.1
Group V — Changes between -0.9 and -2.0% points	9	5.5	-1.4	-4.1	-0.5	0.8	1.8	1.9
Group VI — Changes between -2.0 and -4.0% points	4	5.9	-3.1	-4.5	-0.3 ^d	0.7 ^d	-3.3	0.4
Group VII — Changes between -4.0 and more	7	11.3	-7.7	-18.5	-3.6 ^e	27.8 ^e	8.3	0.7
Developing countries	58	5.6	-0.6	-2.0	1.0 ^{d,e}	2.8 ^{d,e}	2.2	1.6
Developing countries, excluding group VII	51	4.9	0.3	0.4	1.6 ^d	-0.2 ^d	1.3	1.7

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a In columns showing changes, no sign indicates an increase in the percentage in question; minus sign indicates a decline.

^b For some countries, the period is shorter than 1965–1970. See annex table.

^c Estimates refer to 37 countries of the sample for which tax data are available. For country average, see table 7 which includes, in addition, two countries, Burma and Ivory Coast, that are excluded from the sample of 58 countries.

^d Excluding Chad.

^e Excluding Nigeria.

17. The striking result that emerges from table 1 and the annex table is the close and positive association between the rates of growth of GDP and exports.⁶ On the whole, exports increased at a rate higher than that of GDP, but the export elasticity⁷ was not uniform among the sample countries.

18. On the average, the ratios of savings and investment to GDP did not show a clear association either with the rate of growth of GDP or income per capita. Similarly, the marginal propensity to save varied widely from country to country. Furthermore, the tax-GDP ratio and the income elasticity of taxes also showed a similar lack of association with the rate of growth of GDP or income per capita. On the other hand, the capital-output ratio exhibited a clear and inverse relationship with rates of growth of GDP.

19. On the average, during the 1960s agricultural output increased at 3.3 per cent per annum, a rate slightly above the rate of growth of population. However, this rate was rather unevenly distributed among the countries, and in about one-third of them it was below that of population. The rate of growth of manufacturing output showed some slight positive association with the rates of growth of GDP and of GDP per capita: the average for all countries was 7.7 per cent per annum. The output of the manufacturing sector tended to grow approximately twice as

fast as that of agriculture, except in the relatively large countries, where it grew nearly three times as fast.

20. In spite of the relatively fast growth of output of the manufacturing sector, industrial employment increased by only 3.8 per cent per annum or by about one half of the rate of growth of manufacturing output. In the light of the rapid expansion of the labour force in developing countries, this gives rise to some concern. Because of the historical relationship between the rate of growth of manufacturing output and labour absorption, the rate of industrial growth will have to accelerate considerably if the industrial sector is to make an adequate contribution to the creation of employment opportunities in developing countries.

21. Finally, the rate of change in prices—measured by the cost of living—bore no systematic relationship to the other indicators.⁸

22. As noted earlier, inter-country differences in the development indicators require careful interpretation. It is, however, useful to ask whether developing countries have increased their development efforts over a period of time. Table 2 summarizes the changes in the selected indicators that occurred between the first and second halves of the decade of the 1960s.⁹ On the whole, the relationships among the various indicators observed during the period 1960–1970 seem to hold also for changes in these indicators between the sub-periods 1960–1965 and 1965–1970. A discussion of these developments follows.

⁶ A rank correlation between rates of growth of GDP and exports during the period 1960–1970 for the sample of fifty-eight countries indicated a strongly positive relation between the two indicators. The Spearman correlation coefficient was $p = 0.69$ which is significant at the 1 per cent level.

⁷ Defined as the ratio of rate of growth of exports to rate of growth of GDP.

⁸ The relatively high rate of inflation in the sample of low-growth countries reflects the varying experience of three countries only.

⁹ Growth rates of agricultural and manufacturing production and industrial employment are discussed in Part two of the report.

TABLE 3
Countries ranked by average annual rate of growth of GDP,
1960-1965 and 1965-1970 ^a
(Percentages)

Country	1960-1965		1965-1970	
	Rate of growth	Rank	Rate of growth	Rank
Libyan Arab Republic	33.5	1	18.7	1
Jordan	9.8	2	3.6	47
Israel	9.5	3	5.0	24
Nicaragua	8.8	4	4.4	36
Syrian Arab Republic	8.1	5	7.1	9
Saudi Arabia	8.0	6	7.8	5
Panama	7.6	7	7.4	6
Thailand	7.3	8	7.4	6
Venezuela	7.2	9	4.3	40
Mexico	7.1	10	7.0	10
El Salvador	6.9	11	4.4	36
Mauritius	6.8	12	0.2	56
Iraq	6.6	13	4.9	29
Togo	6.5	14	5.4	21
Costa Rica	6.4	15	6.8	12
Republic of Korea	6.3	16	12.5	2
Egypt	6.3	16	0.4	55
Iran	6.2	18	9.9	3
Malaysia	6.1	19	4.9	29
Peru	6.0	20	2.9	50
Pakistan	5.7	21	6.3	15
Zambia	5.6	22	8.3	4
Kuwait	5.5	23	7.4	6
Jamaica	5.3	24	4.4	36
Guatemala	5.3	24	5.0	24
Mozambique	5.3	24	4.7	31
Bolivia	5.2	27	5.9	16
Liberia	5.2	27	4.0	44
Morocco	5.0	29	4.4	36
Guyana	4.9	30	5.2	22
Tunisia	4.9	30	3.0	49
Chile	4.9	30	3.2	48
Uganda	4.7	33	4.6	34
Cameroon	4.7	33	5.0	24
Colombia	4.7	33	5.6	19
Philippines	4.6	36	4.0	44
Nigeria	4.6	36	-7.2	58
Kenya	4.4	38	6.4	14
Ecuador	4.4	38	5.7	17
Lebanon	4.4	38	2.6	52
Paraguay	4.4	38	4.5	35
Ethiopia	4.2	42	4.0	44
Honduras	4.1	43	5.0	24
Brazil	4.0	44	7.0	10
Ceylon	3.8	45	6.7	13
India	3.8	45	4.3	40
Tanzania, United Republic of	3.7	47	4.1	43
Zaire	3.6	48	5.0	24
Argentina	3.5	49	4.2	42
Sierra Leone	3.5	49	5.5	20
Sudan	3.4	51	5.1	23
Chad	3.4	51	-0.5	57
Ghana	3.1	53	1.7	53
Dominican Republic	2.6	54	5.7	17
Malagasy Republic	1.8	55	2.9	50
Indonesia	1.6	56	4.7	31
Malawi	1.4	57	4.7	31
Uruguay	0.8	58	0.9	54

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a For some countries, the period is shorter than 1965-1970. See annex table.

23. *The rate of growth of GDP.* As may be seen from tables 2 and 3, changes in the rates of growth of GDP between the periods 1960–1965 and 1965–1970 varied widely from country to country. The unweighted average for the sample of fifty-eight countries is significantly influenced downwards by sharp declines in the growth rates of seven countries (table 2, group VII). Most of these countries were unfavourably affected by hostilities in the Middle East and internal strife. In another country, the Libyan Arab Republic, the sharp decline in the rate of growth of GDP reflected a normal downward adjustment from the extremely high rate of growth for the period 1960–1965 which was connected with discovery and exploitation of oil reserves.

24. Excluding the above group of countries, the unweighted average gain in the growth rate of GDP of the remaining fifty-one countries between the periods 1960–1965 and 1965–1970 was relatively modest, namely 0.3 percentage points¹⁰ (table 2). Nearly half of the fifty-one developing countries experienced declines in their growth rates.

25. A salient feature that emerges from tables 2 and 3 is the improved growth performance of the countries that grew at less than 5 per cent per annum during the period 1960–1965. Of the thirty countries in this group, two-thirds registered gains in their growth rates during the second half of the 1960s. On the other hand, only eight of the twenty-eight countries with growth rates equal to or higher than 5 per cent per annum during the period 1960–1965 registered gains in their growth rates during the second half of the 1960s—and four of them were either petroleum or copper producing countries. In general, as may be seen from table 2, there appears to be an inverse correlation between the rate of growth of GDP in 1960–1965 and the acceleration in the growth rate between the first and the second half of the 1960s.¹¹ As a result, the spread of country growth rates around the sample average was less for the period 1965–1970 than for the period 1960–1965.

26. The sources of changes in the GDP growth rate varied, of course, from country to country and it would be impossible to attempt, within the scope of this study, a proper assessment of the factors involved. However, the data suggest that general patterns exist, and this is discussed below in the context of the review of a number of more specialized indicators.

27. *Export performance.* An examination of growth rates of exports for the sample of fifty-one countries¹²

reveals, on the average, an acceleration between the periods 1960–1965 and 1965–1970 by 0.4 percentage points (see tables 2 and 4). As in the case of comparisons of growth rates of GDP and exports for the decade of the 1960s, changes in export growth rates are associated with changes in growth rates of GDP.¹³

28. The close association between growth rates of GDP and exports may indicate the role of world demand in influencing the level of production. Alternatively, this association may reflect vigorous and successful export promotion policies. While in the former case external demand may have stimulated expansion of output in sectors that were previously producing under conditions of less than full capacity, the latter case would call for substantial mobilization of resources and standards of efficiency that would make it possible for a country to compete internationally.

29. It appears that the experience of individual countries varied in this respect. In some countries high growth rates of exports reflected favourable world conditions for their traditional export products but in a number of other countries the gains registered were attributable either to competitiveness or to diversification of their export structures or to both. Detailed analysis of changes in export growth rates between the periods 1960–1965 and 1965–1970 is not yet possible but preliminary results of a study by the UNCTAD secretariat tend to confirm that improvements in export performance took place in a considerable number of countries. According to the study, in more than half of the ninety-five countries for which data were available the rates of growth of export earnings exceeded the rates obtained by applying the individual commodity export growth rates for the world as a whole to their base year (1962) export structure. The study indicates that only sixteen countries had more favourable export structures than world trade as a whole in 1962 and that fifty-eight of the countries had structures which were considerably less favourable: the commodity export structures of the latter countries were such as to exert a downward bias of at least 3 to as much as 9 percentage points below the average annual growth rate of total world exports during the period 1962 to 1968 (9.4 per cent). Despite the fact that only sixteen of the countries had relatively favourable export structures, thirty-five countries surpassed the export growth performance of the world, and fifty-one of the ninety-five countries had a positive competitive performance, after allowance for their export structures. Of these latter, twenty-six countries exceeded the export growth rates given by their export structures by 5 per cent or more per annum. As a result of the changes between 1962 and 1968, twenty-one of the countries showed significant improvements in their export

¹⁰ When rates of growth of GDP are weighted by the 1963 levels of GDP of the developing countries, the gain in the rates of growth between these periods is 0.8 percentage points.

¹¹ For the sample of fifty-eight countries, the following results were obtained:

$$DR = -0.59 RY + 2.68 \quad R^2 = 0.37 \\ (-3.258) \quad (2.653)$$

where DR = difference in growth rates of GDP between periods 1965–1970 and 1960–1965.

RY = rate of growth of GDP in 1960–1965.
Figures in parentheses are t-values.

¹² As noted earlier, the sample of fifty-one countries excludes from the whole group of fifty-eight seven countries whose growth rates declined in 1965–1970 for special reasons.

¹³ A regression of changes in the rate of growth of GDP (R) and changes in the rates of growth of exports (RX) between the periods 1960–1965 and 1965–1970 yielded the following:

$$R = 0.24 RX + 0.24 \quad R^2 = 0.37 \\ (5.620) \quad (1.163)$$

Furthermore, the rank correlation coefficient between the two variables is = 0.64, which is significant at the 1 per cent level.

TABLE 4

Countries ranked by average annual rate of growth of exports of goods and services,
1960-1965 and 1965-1970 ^a

(Percentages)

Country	1960-1965		1965-1970	
	Rate of growth	Rank	Rate of growth	Rank
Libyan Arab Republic	75.0	1	26.3	2
Republic of Korea	19.0	2	28.1	1
Nicaragua	16.4	3	1.3	50
Jordan	14.9	4	-2.7	55
Israel	13.3 ^b	5	12.4 ^b	4
Liberia	12.9	6	6.2	26
El Salvador	12.7 ^b	7	8.1 ^b	13
Mauritius	12.1	8	-2.6	54
Togo	11.5	9	5.7	28
Guatemala	10.2	10	7.8	15
Saudi Arabia	10.2	10	7.4	18
Panama	10.1	12	8.4	10
Thailand	9.7	13	7.1	20
Venezuela	9.7	13	2.6	45
Philippines	9.6	15	6.6	48
Nigeria	9.2	16	-10.7	58
Kuwait	6.1	17	8.0	14
Uganda	8.0	18	3.8	41
Honduras	7.9 ^b	19	7.1 ^b	20
Lebanon	7.9	19	8.9	8
Iran	7.7	21	13.4	3
Mozambique	7.6	22	11.5	6
Ethiopia	7.6	22	6.9	23
Iraq	7.6	22	4.3	37
Ecuador	7.2 ^b	25	5.7 ^b	28
Syrian Arab Republic	6.8	26	2.6	45
Kenya	6.6	27	4.3	37
Argentina	6.1	28	4.3	37
Egypt	5.9	29	-6.4	56
Chad	5.7	30	1.4	49
Jamaica	5.7	30	4.4	36
Pakistan	5.6 ^b	32	5.0 ^b	33
Chile	5.3	33	4.7	34
Mexico	5.3	33	5.4	31
Malaysia	5.1	35	5.3	32
Cameroon	5.1	35	6.5	25
Tanzania, United Rep. of	4.9	37	8.3	11
Malagasy Republic	4.7 ^b	38	5.8 ^b	27
Costa Rica	4.5	39	12.1	5
Guyana	4.4	40	5.5	30
Bolivia	4.4	40	8.3	11
Peru	4.3	42	2.5	47
Uruguay	4.2	43	-0.9	53
Ghana	4.1	44	-9.1	57
India	3.9	45	7.4	17
Tunisia	3.7 ^b	46	-0.4 ^b	52
Zambia	2.8	47	8.5	9
Sudan	2.7	48	4.5	35
Colombia	2.4	49	7.3	19
Brazil	2.1	50	9.0	7
Ceylon	2.1	50	-0.3	51
Morocco	2.1	50	4.3	37
Malawi	1.3	53	3.0	42
Indonesia	0.6	54	2.7	43
Sierra Leone	-1.4	55	7.7	16
Paraguay	-1.6	56	2.7	43
Dominican Republic	-4.8	57	7.1	20
Zaire	-5.8	58	6.6	24

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a For some countries, the period is shorter than 1965-1970. See annex table.

^b Exports of goods only.

TABLE 5

Average investment-GDP ratios and marginal capital-output ratios,
1960-1965 and 1965-1970

(Percentages)

Country ^a	Investment-GDP ratio		Marginal capital-output ratio	
	1960-1965	1965-1970 ^b	1960-1965	1965-1970 ^b
Libyan Arab Republic	37.5	20.9	0.9	1.0
Republic of Korea	14.2	25.9	2.2	2.0
Saudi Arabia	13.7	15.4	1.6	1.8
Zambia	19.3	25.7	3.3	3.1
Jordan	16.5	16.3	1.6	4.1
Iran	14.9	18.4	2.2	1.7
Panama	18.4	22.1	2.4	2.8
Israel	27.6	21.4	2.8	4.4
Thailand	21.0	29.8	2.7	3.5
Mexico	18.8	20.1	2.4	2.5
Costa Rica	21.6	22.8	3.1	3.1
Syrian Arab Republic	16.5	16.9	2.2	2.3
Togo	14.4	16.5	1.8	2.9
Nicaragua	17.4	20.7	1.8	4.1
Iraq	18.2	15.3	2.7	3.0
Kuwait	12.8	17.4	2.3	2.4
Pakistan	15.0	15.2	2.7	2.0
Bolivia	16.6	19.3	3.0	2.8
El Salvador	14.0	14.0	1.9	3.1
Malaysia	16.6	16.3	2.6	3.2
Venezuela	17.0	17.4	2.2	3.5
Kenya	13.4	14.7	3.1	2.2
Honduras	15.1	19.2	2.8	3.5
Guatemala	10.3	12.3	1.8	2.3
Brazil	17.7	17.6	4.4	2.2
Cameroon	12.2	12.8	2.4	3.1
Colombia	19.2	18.8	4.0	2.8
Ecuador	14.3	13.5	3.2	2.2
Uganda	11.7	15.2	2.2	3.2
Jamaica	19.3	23.4	3.4	4.9
Ceylon	14.2	15.7	3.8	2.0
Mozambique	27.0	29.4	5.2	6.1
Liberia	18.7	15.1	3.9	4.0
Paraguay	14.1	15.3	3.1	6.4
Peru	22.0	21.0	3.6	3.3
Sierra Leone	12.4	14.3	3.3	2.2
Ethiopia	12.1	13.4	2.8	3.3
Philippines	16.9	19.6	3.5	5.9
Chile	17.9	17.8	3.6	4.8
Argentina	19.4	18.5	5.5	4.0
Tanzania, United Republic of	12.0	14.7	3.0	3.5
Lebanon	22.1	23.7	4.8	2.4
Morocco	11.1	13.7	2.4	3.0
Guyana	20.5	22.1	4.2	4.0
Zaire	14.1	19.1	4.1	3.2
Malawi	9.1	14.0	6.3	2.7
Tunisia	20.7	23.8	4.0	7.0
Sudan	14.9	10.8	4.9	2.1
Egypt	18.2	18.0	2.8	75.2
Dominican Republic	15.6	18.8	7.8	3.1
Mauritius	19.5	13.8	2.8	90.9
India	17.0	17.2	4.4	4.2
Indonesia	8.7	8.7	5.8	2.5
Ghana	20.2	15.9	6.2	10.2
Malagasy Republic	9.8	10.6	5.5	3.4
Uruguay	14.8	12.4	21.8	16.8

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a Countries are in descending order of rate of growth of GDP during the period 1960-1970.

^b For some countries, the period is shorter than 1965-1970. See annex table.

structures (equivalent to a growth rate of 1 per cent or more per annum) and five countries showed significant deterioration (equal to 1 per cent or more per annum).

30. *Investment-GDP and capital-output ratios.* As shown in table 2, for the sample of fifty-one countries the investment-GDP ratio increased between the periods 1960-1965 and 1965-1970 by 1.6 percentage points. In thirty-six of the fifty-one countries the ratio showed improvements, but the distribution of gains was rather uneven (see table 5). For example, eight countries registered increases in the ratio by more than 4 percentage points and thus accounted for a major part of the over-all increase.

31. On the whole, there was a tendency for changes in the investment-GDP ratio to be associated with changes in the growth rates of both GDP and exports.¹⁴ Moreover, foreign saving did not appear to be a significant factor in explaining increases in the investment-GDP ratio. In fact, in fourteen of the thirty-six countries which increased their investment-GDP ratios, foreign saving as a proportion of GDP showed a decline. On the other hand, among the countries where a decline in the investment ratio was recorded, adverse movements in the ratio of foreign saving to GDP was a contributing factor.

32. Changes in the capital-output ratios were inversely associated with changes in the rate of growth of GDP.¹⁵ In cases where the rate of growth of GDP declined, capital-output ratios increased, indicating that the slowdown of economic activity might have been associated with reduction in the use of installed capacity. On the other hand, in cases where the rate of growth of GDP accelerated, capital-output ratios showed a downward trend, and this was often accompanied by increases in the investment-GDP ratio. In thirteen of the sample countries which recorded acceleration in the rate of growth of GDP, increases in the investment-GDP ratio were associated with declines in the capital-output ratios, suggesting the possibility that the productivity of a larger volume of the resources mobilized might have increased.

33. *The savings effort.* As shown in table 2, the average change in the savings-GDP ratio for the sample of fifty-one countries was noteworthy, showing a gain of 1.3 percentage points. As may be inferred from the data provided in table 6, about two-thirds of the countries recorded an increase in the ratio, but the gains were distributed unevenly. Of the thirty-eight countries which registered an increase in the ratio, ten recorded advances of more than 6 percentage points and accounted for the major part of the over-all gain.¹⁶ For the remaining twenty-eight

countries the average increase in the savings-GDP ratio was 1.6 percentage points. There appears to be no uniform pattern explaining the declines in the savings-GDP ratios of twenty of the sample countries shown in table 6, but a number of them were affected by adverse short-term factors.

34. *The tax effort.* Total tax revenues as percentage of GDP are shown in tables 2 and 7. The tax-GDP ratio increased by 1.6 percentage points between the periods 1960-1965 and 1965-1970. As may be inferred from the figures in table 7, thirty-three out of the thirty-seven countries shown in that table increased tax ratios during the latter half of the 1960s, reflecting a vigorous effort to enhance the role of government in economic activities. The substantial increase in the ratio is particularly impressive since it appears to have been realized independently of increases in income or export growth rates. However, the increase in the ratio exhibits a rather close and reverse association with changes in the rates of inflation as reflected in the cost-of-living indices.¹⁷

35. Tax policies, particularly when directed at increasing the share of direct taxes in total revenue, could potentially be an effective measure in redistributing income. As is shown in table 7, during the period 1960-1969, in only four countries did the ratio of direct to total tax revenues exceed 50 per cent; in three of the four countries, the high incidence of direct taxation is attributable to corporate income taxes on copper (Chile and Zambia) or oil (Venezuela), and in the fourth country (Uruguay) it is significantly influenced by relatively high social security taxes. Of the thirty-seven countries listed in table 7, twenty-nine recorded an increase in the direct tax ratio during the second half of the decade. With the exception of Israel, Uganda and Panama, countries exhibiting the largest gains in direct taxation also appear to have made substantial advances in the over-all tax-GDP ratio. It should be noted that in some cases the gains in direct taxation may reflect factors which are to a certain extent extraneous to the countries concerned. In the cases of Chile and Zambia, part of the increase in direct taxation appears to be due to high copper prices and steeper corporate income taxes affecting the copper sector.

36. *Instability.* In developing countries, whereas export prices move both in an upward and a downward direction, internal prices, as in the case of developed countries, generally move only upwards. The degree of instability in internal prices is, therefore, synonymous with the rate of inflation, which is best measured by changes in the price index of domestic consumption and investment expenditures combined.¹⁸ Since this index is not available for a sufficiently large number of developing countries, the cost-of-living index and the index of consumer prices have been used as a substitute in this study.

¹⁴ The rank correlations between changes in investment-GDP ratios on the one hand and changes in the rates of growth of GDP and exports on the other hand were 0.31 and 0.35, respectively, and both significant at the 5 per cent level.

¹⁵ The rank correlation between the two variables was -0.56 which is significant at the 1 per cent level.

¹⁶ These countries are: Ceylon, Honduras, Jamaica, Kenya, Liberia, Libyan Arab Republic, Nicaragua, United Republic of Tanzania, Thailand and Togo.

¹⁷ The rank correlation between the two variables is 0.55 and significant at the 1 per cent level.

¹⁸ This index is often called the implicit deflator of "gross domestic expenditure".

TABLE 6
Countries ranked by average savings-GDP ratios,
1960-1965 and 1965-1970 ^a
(Percentages)

Country ^b	1960-1965		1965-1970	
	Ratio	Rank	Ratio	Rank
Kuwait	59.3	1	56.6	3
Saudi Arabia	55.5	2	58.8	1
Zambia	38.9	3	38.3	4
Venezuela	35.4	4	35.6	6
Iraq	34.9	5	35.8	5
Malaysia	29.2	6	30.4	8
Guyana	24.0	7	20.5	16
Iran	23.2	8	26.9	9
Zaire	22.1	9	16.5	28
Uganda	21.0	10	22.5	12
Peru	20.5	11	12.3	42
Argentina	20.5	11	20.2	17
Mozambique	20.2	13	20.8	15
Thailand	19.5	14	25.7	10
Ghana	18.9	15	18.0	21
Mexico	18.3	16	19.2	18
Colombia	17.9	17	16.9	25
Brazil	17.6	18	18.2	20
Jamaica	16.7	19	23.3	11
Liberia	16.7	19	30.7	7
Mauritius	16.1	21	17.6	22
Chile	15.6	22	14.3	33
Cameroon	15.5	23	16.3	29
Egypt	15.4	24	16.6	27
Ecuador	15.3	25	12.3	42
Ceylon	15.3	25	20.9	14
Kenya	15.0	27	14.8	30
India	15.0	27	14.7	31
Syrian Arab Republic	14.9	29	16.7	26
Libyan Arab Republic	14.7	30	58.1	2
Panama	14.5	31	19.1	19
El Salvador	14.5	31	12.7	41
Israel	13.8	33	8.4	52
Paraguay	13.3	34	14.3	33
Tanzania, United Republic of	13.3	34	21.3	13
Dominican Republic	13.2	36	9.3	50
Uruguay	13.1	37	13.8	35
Lebanon	13.0	38	13.2	38
Philippines	12.4	39	11.5	45
Pakistan	11.6	40	10.2	49
Sudan	10.7	41	10.9	46
Togo	10.6	42	17.4	24
Tunisia	10.5	43	5.7	54
Morocco	10.4	44	12.2	44
Costa Rica	10.3	45	14.7	31
Nigeria	10.2	46	13.2	38
Ethiopia	10.0	47	10.4	48
Sierra Leone	9.5	48	10.7	47
Guatemala	9.1	49	12.9	40
Indonesia	8.4	50	9.3	50
Malagasy Republic	6.7	51	7.1	53
Republic of Korea	6.4	52	17.5	23
Bolivia	5.6	53	5.4	55
Chad	2.3	54	-1.0	56
Nicaragua	1.4	55	13.8	35
Honduras	-3.9	56	13.6	37
Malawi	-3.9	56	-2.3	57
Jordan	-10.3	58	-8.4	58

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a For some countries, the period is shorter than 1965-1970. See annex table.

^b Countries are ranked in descending order of saving-GDP ratio during the period 1960-1965.

TABLE 7
Tax revenue as proportion of GDP 1960-1969 and changes in tax-GDP ratio
between the periods 1960-1965 and 1965-1970^a
(Percentages)

Country ^b	1960-1969 Tax-GDP ratio	Rank	Direct tax- total tax ratio	Change in total tax- GDP ratio 1960-1965 1965-1969	Change in direct tax- GDP ratio 1960-1965 1965-1969
Uruguay	26.5	1	52.5	0.3	-1.2
Chile	26.4	2	54.2	4.0	2.8
Israel	26.2	3	40.5	0.4	2.0
Tunisia	22.9	4	34.5	2.6	1.4
Brazil	21.1	5	30.8	4.6	2.1
Mauritius	18.3	6	30.1	-0.2	-1.0
Burma	18.1	7	42.0	4.5	4.4
Zambia	18.1	7	81.2	12.6	10.2
Ivory Coast	17.7	9	16.4	1.0	1.2
Guyana	17.5	10	36.6	1.4	-0.2
Uganda	17.1	11	24.9	1.2	2.4
Peru	16.8	12	36.3	1.6	0.5
Venezuela	16.2	13	55.6	-0.9	1.8
Jamaica	16.0	14	36.9	1.7	0.4
Ecuador	15.4	15	42.2	0.1	0.2
Costa Rica	15.3	16	30.1	-0.1	0.9
Kenya	14.1	17	40.4	1.6	1.4
Panama	13.8	18	44.9	1.6	2.0
Tanzania, United Republic of	13.6	19	34.6	5.1	2.0
India	13.1	20	26.7	0.9	-0.2
Ghana	12.5	21	21.6	0.3	0.5
Morocco	12.3	22	28.5	1.3	1.1
Bolivia	12.0	23	35.0	0.5	-0.1
Colombia	11.5	24	40.9	2.3	0.6
Jordan	11.1	25	15.3	1.4	0.0
Argentina	11.1	25	22.7	1.7	-0.1
Honduras	11.0	27	19.1	1.9	1.3
Nicaragua	10.9	28	23.9	1.0	1.1
Paraguay	10.5	29	29.5	0.9	0.1
Thailand	10.4	30	14.4	0.9	0.3
Republic of Korea	10.4	30	30.8	2.4	1.4
Philippines	9.8	32	22.4	0.0	0.2
Guatemala	8.9	33	22.5	0.8	0.1
Pakistan	8.7	34	27.6	1.2	0.1
Ethiopia	7.5	35	24.0	0.8	0.0
Iran	7.4	36	18.9	0.8	0.2
Iraq	7.3	37	24.7	0.6	0.7

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information provided by the Department of Economic and Social Affairs of the United Nations.

^a For some countries, the period is shorter than 1965-1970. See annex table.

^b Countries are in descending order of the tax ratio during the period 1960-1969.

37. It can be seen from tables 8 and 9 that prices rose continuously in the great majority of developed and developing countries in the 1960s. Although the rate of increase in prices in most developing countries shown in table 8 has been no higher than that in developed countries, differences in the rate of inflation experienced by individual countries have been considerably greater among the former. The fact that the average rate of price increase during the first half of the 1960s was more than twice as high in

developing countries is explained primarily by particularly high rates in a small number of them, mostly in Latin America, *i.e.* Argentina, Brazil, Chile, Colombia and the Philippines. Except for Argentina, all these countries succeeded in moderating inflation in the second half of the 1960s, and this largely accounts for the decline in the average rate of price increases for all developing countries shown in table 8.

TABLE 8

Average annual rate of increase in cost-of-living indices for selected developing countries, 1960-1969

	1960-1965	1965-1969
Argentina	21.2	23.6
Bolivia	4.8	7.6
Brazil	49.2	28.4
Ceylon	2.0	4.9
Chile	25.6	20.6
Colombia	13.1	9.3
Cyprus	0.4	1.9
Dominican Republic	3.8	—
Ecuador	3.9	3.5
Egypt	2.4	3.7
El Salvador	0.4	1.0
Guatemala	0.3	0.9
India	5.6	7.0
Iran	1.9	1.4
Israel	6.9	3.0
Kenya	1.7	2.1
Mexico	1.7	3.0
Morocco	4.2	0.4
Pakistan	2.0	4.3
Panama	1.1	1.5
Peru	8.5	11.5
Philippines	10.2	3.7
Sudan	3.2	2.9
Tanzania, United Republic of	0.8	4.4
Thailand	1.5	2.9
Tunisia	2.2	3.2
Uganda	3.1	—
Unweighted average	6.7	5.7

Sources: UNCTAD secretariat, based on IMF, *International Financial Statistics*, various issues, and Statistical Office of the United Nations.

TABLE 9

Average annual rate of increase in cost-of-living indices for selected developed countries, 1960-1969

	1960-1965	1965-1969
Belgium	2.3	3.3
Canada	1.6	4.0
Federal Republic of Germany	1.5	—
France	3.9	3.9
Italy	5.2	2.4
Japan	5.9	4.8
Luxembourg	2.2	2.4
Netherlands	3.6	4.7
United Kingdom	3.3	4.0
United States	1.1	3.9
Unweighted average	3.1	3.3

Source: UNCTAD secretariat, based on IMF, *International Financial Statistics*, various issues.

38. The major causes of inflation are discussed in Part two of this paper. That analysis suggests that inflationary pressures emanating from both the supply and demand side are likely to be stronger in developing than in developed countries. In addition, developing countries have faced greater balance-of-payments difficulties and the policy response of many Governments to such difficulties has, as explained later, played an important role in raising prices. It is therefore of interest to examine developments in the 1960s from this standpoint.

TABLE 10

Indicators of external instability for selected developing and developed countries, 1960-1969^a

	1960-1965	1965-1969
<i>Standard deviation</i>		
1. Index of unit value of exports ^b		
Developing countries	6.7	6.6
Developed countries	2.2	2.1
2. Balance of payments ^c		
Developing countries	0.08	0.06
Developed countries	0.04	0.04
<i>Per cent deviation from trend^d</i>		
3. Index of volume of exports		
Developing countries	4.7	3.3
Developed countries	2.5	2.2
4. Index of volume of imports		
Developing countries	6.6	5.0
Developed countries	3.3	2.5

Sources: UNCTAD secretariat, based on Statistical Office of the United Nations and IMF, *International Financial Statistics*, various issues.

^a Unweighted arithmetic averages for the number of countries stated in each case.

^b For 20 developing and 10 developed countries.

^c For 33 developing and 10 developed countries; standard deviation of the ratio of the balance of the receipts and payments on goods and services account to payments on that account.

^d For 29 developing and 9 developed countries. Represents

$$\frac{100}{n} \frac{\sum (X_t - \hat{X}_t)^2}{\sum X_t^2} = 1$$

where n is the number of years, X_t the actual value and \hat{X}_t the exponential trend value of the index; $\hat{X}_t = a(1+r)^t$, a and r are obtained by the least squares method.

39. Exports of developing countries have been relatively more unstable, both in volume and price, and this is a very important factor in the greater incidence of balance-of-payments difficulties amongst them. Table 10 shows four indicators of instability related to foreign transactions, for a selected number of developing and developed countries during the first and second halves of the 1960s. The standard deviation has been used to measure instability in export prices and in the balance of payments on goods and services. For the volume of exports and imports, which are subject to a time trend, the percentage deviation from trend has been used. All these indicators show that during both halves of the last decade developing countries experienced a considerably greater instability in their external transactions than developed countries; the instability of export prices was more than three times as high in the former group and that of the other three indices about twice as great.

40. The causal relationship between the four indicators is rather complex, but it is reasonably safe to assume that in developing countries it is the fluctuations in the volume and prices of exports that have generally been responsible for the instability of imports and of the balance of payments. The data presented in table 10 suggests that, although there was no abatement in the instability of export prices of developing countries in the course of the 1960s, the volume of their exports fluctuated less violently during 1965-1969 than in the preceding five years. The latter may partly explain the reduction in the instability of imports and of the balance of payments of these countries in the second half of the 1960s indicated by the table.

ANNEX TABLE
Annual average compound rates of growth of GDP and related indicators, 1960-1970*
(Percentages)

Country	Growth rate of GDP	Rate of growth of export earnings ^a	Investment-GDP ratio	Gross domestic saving-GDP ratio	Marginal gross domestic savings rate	Tax-GDP ratio	Income elasticity of tax	Incremental capital-output ratio	Rate of growth of agricultural output ^a	Rate of growth of manufacturing output ^a	Rate of growth of employment in manufacturing	Rate of change of cost-of-living index
Libyan Arab Republic	27.5	52.6	31.9	29.6	78.6	...	...	1.0	5.9	...	...	...
Republic of Korea	9.6	26.2	20.5	12.1	35.7	10.4	1.1	1.9	4.8	17.8	8.4	13.5
Saudi Arabia	8.4	10.0	14.4	56.7	65.9	...	...	1.6	...	...	...	...
Zambia	8.3	5.0	22.1	38.6	38.8	18.1	2.3	2.5	...	13.0	6.9	...
Jordan	8.2	9.9	16.5	-10.1	-0.1	11.1	1.2	2.0	...	...	...	...
Iran	7.8	9.9	16.3	24.6	36.9	7.4	1.2	1.8	3.5	11.1	2.2	1.6
Panama	7.5	9.3	20.4	17.0	28.1	13.8	1.3	2.6	4.8	10.7	5.8	1.3
Israel	7.4	10.8 ^a	25.0	11.4	-4.0	26.2	1.0	3.6	6.6	10.1	3.1	5.3
Thailand	7.4	9.8	25.4	22.5	36.8	10.4	1.3	3.1	...	...	...	2.2
Mexico	7.1	5.1	19.5	18.7	21.1	...	...	2.3	4.1	8.7	...	2.7
Costa Rica	6.8	9.3	21.7	12.3	25.1	15.3	0.9	2.8	5.6	9.0	...	2.0
Syrian Arab Republic	6.7	4.5	16.8	15.3	26.8	...	...	2.6	2.2	8.7	2.4	1.8
Togo	6.7	10.0	14.8	13.3	31.2	...	...	2.6	...	...	...	...
Nicaragua	6.6	8.8	18.9	6.8	21.3	10.9	1.3	2.7	...	10.4	...	2.2
Iraq	6.2	6.2	17.0	35.5	40.6	7.3	1.3	2.7	4.3	...	...	1.7
Kuwait	6.2	5.5	14.6	57.9	46.3	...	...	2.2	...	...	...	...
Pakistan	6.1	4.6 ^a	15.3	11.1	10.0	8.7	1.4	2.4	3.5	10.1	2.8	3.8
Bolivia	5.8	7.3	17.8	5.8	6.5	12.0	1.1	2.7	2.3	7.5	...	5.6
El Salvador	5.8	9.4 ^a	13.9	13.6	7.9	...	...	2.3	...	9.2	3.4	0.7
Malaysia	5.6	5.1	16.3	29.9	34.2	...	...	2.9	5.4	...	4.5	...
Venezuela	5.6	5.5	17.2	35.4	37.1	16.2	0.8	2.8	5.3	7.0	2.3	1.1
Kenya	5.5	5.8 ^a	14.3	15.0	15.3	14.1	1.1	2.3	...	6.0	4.4	1.9
Honduras	5.4	9.0 ^a	17.1	12.3	17.1	11.0	1.5	2.8	3.8	8.3	4.6	2.6
Guatemala	5.1	9.5	11.3	11.0	26.1	8.9	1.2	2.2	3.4	4.2	0.4	0.5
Brazil	5.0	6.3	17.6	17.8	20.0	21.1	1.1	3.0	2.5	5.0	1.3	38.7
Cameroon	5.0	5.2	13.7	15.7	14.6	...	...	2.8	...	...	6.6	4.1
Colombia	5.0	3.8	19.1	17.4	12.2	11.5	1.2	3.2	2.8	5.4	0.5	11.7
Ecuador	5.0	3.0 ^a	13.9	13.6	0.8	15.4	1.1	2.6	4.1	5.9	1.6	4.0
Uganda	4.9	5.6	13.4	21.8	26.3	17.1	1.2	2.9	...	...	3.2	3.0
Jamaica	4.8	5.4	21.6	21.6	33.4	16.0	1.4	4.0	...	...	...	3.5
Ceylon	4.8	1.0	15.1	17.9	46.2	19.2	...	2.8	2.6	5.4	...	3.4
Mozambique	4.8	7.5	27.6	20.3	28.7	...	...	6.2	...	13.0	...	2.7
Liberia	4.5	11.7	15.3	...	...	...	...	3.5	...	...	...	...
Paraguay	4.4	1.7	14.6	13.6	17.0	10.5	1.2	3.2	3.9	5.1	...	2.6

ANNEX TABLE (continued)
Annual average compound rates of growth of GDP and related indicators, 1960-1970^a
(Percentages)

Country ^b	Growth rate of GDP	Rate of growth of export earnings ^c	Investment-GDP ratio	Gross domestic saving-GDP ratio	Marginal gross domestic savings rate	Tax-GDP ratio	Income elasticity of tax	Incremental capital-output ratio	Rate of growth of agricultural output ^d	Rate of growth of manufacturing output ^d	Rate of growth of labour employment in manufacturing	Rate of change of cost-of-living index
Peru	4.4	3.1	21.4	16.5	-18.1	16.8	1.1	5.1	1.6	7.6	2.9	9.9
Sierra Leone	4.4	0.8	12.6	10.0	20.6	...	...	2.8	...	...	8.2	4.2
Ethiopia	4.3	6.5	12.8	10.4	14.9	7.5	1.4	2.9	2.7	...	...	...
Philippines	4.2	7.2	18.2	12.1	0.5	9.8	1.0	4.5	2.7	6.0	1.1	7.9
Chile	4.2	5.3	17.8	14.7	9.9	26.4	1.1	3.8	2.0	4.6	1.2	24.8
Argentina	4.1	4.7	19.0	19.8	25.6	11.1	1.1	4.3	2.2	4.4	0.6	21.0
Tanzania, United Republic of . .	4.0	8.1	12.9	16.1	58.8	13.6	2.5	3.1	...	...	6.1	2.6
Lebanon	3.8	7.6	22.8	13.4	18.9	...	...	5.8	...	...	...	...
Morocco	3.8	1.9	12.7	10.9	23.9	12.3	1.2	3.2	4.0	3.4	...	2.2
Guyana	3.8	4.5	21.2	21.2	8.4	17.5	1.3	4.8	...	...	...	...
Zaire	3.7	-1.1	16.1	19.6	1.0	21.7	...	4.6	...	...	...	21.8
Malawi	3.7	5.2	11.5	-3.1	7.2	...	...	2.7	...	...	...	...
Tunisia	3.6	5.8 ^e	22.2	5.2	14.9	22.9	1.3	6.0	0.3	...	...	3.1
Sudan	3.5	2.5	13.3	10.9	12.6	...	...	4.0	5.1	...	...	2.6
Egypt	3.4	0.2	17.9	15.7	27.2	...	...	5.9	3.2	10.5	4.0	4.4
Dominican Republic	3.4	-0.2	17.6	11.6	-5.5	17.6	...	4.7	0.2	2.1	...	1.9
Mauritius	3.3	5.5	17.1	16.2	40.5	18.3	0.8	5.1	...	...	...	...
India	3.2	3.9	16.8	14.7	15.8	13.1	1.2	5.6	1.7	5.4	2.4	7.1
Indonesia	2.8	1.5	8.7	8.6	10.6	...	...	4.2	1.9	...	...	108.9
Ghana	2.2	-0.7	17.9	18.3	14.2	12.5	1.1	8.9	...	8.8	4.8	...
Chad	2.0	3.2	11.2	0.9	...	...	...	5.7	...	...	...	4.7
Malagasy Republic	1.8	4.9 ^e	10.2	6.7	-3.1	...	...	5.5	...	...	4.9	...
Nigeria	1.3	4.8	12.3	11.0	40.9	...	...	11.2	...	8.0	8.7	...
Uruguay	0.8	1.8	13.9	13.2	33.6	26.5	1.0	16.5	1.3	0.7	...	41.7

Sources: UNCTAD secretariat, based on data of the Statistical Office of the United Nations and information made available by the Department of Economic and Social Affairs of the United Nations; also national sources.

^a Estimates of some indicators are for shorter periods as listed below.

Rate of growth of GDP, exports, investment and savings ratios. Period 1960-1968: Chad, Iran, Israel, Jordan, Kuwait, Libyan Arab Republic, Mozambique, Nigeria, Saudi Arabia, Sierra Leone, Sudan, Syrian Arab Republic, United Republic of Tanzania. Period 1960-1969: Ceylon, Egypt, Ghana, Iraq, Kenya, Lebanon, Liberia, Malagasy Republic, Mauritius, Zambia. For India, rates of growth of GDP and exports refer to 1960-1970; but investment and saving ratios refer to the period 1960-1968. For Indonesia, the rate of growth of GDP refers to 1960-1970, but the rate of growth of export earnings, investment and savings ratios refer to 1960-1968.

Tax-GDP ratio and income elasticity of tax. Estimates refer to 1960-1969 with the exception of following countries, for which data are available for different periods. 1960-1967: Ecuador, Guatemala, Guyana, India, Iran, Israel, Thailand, Tunisia, Uruguay. 1960-1968: Brazil, Colombia, Costa Rica, Ghana, Iraq,

Jamaica, Jordan, Nicaragua, Panama, Republic of Korea, Venezuela, 1961-1968; Ethiopia, 1961-1969; Kenya and United Republic of Tanzania, 1962-1969; Paraguay.

Rate of growth of manufacturing output; estimates refer to 1960-1969.

Rate of growth of employment in manufacturing; estimates refer to 1960-1968.

Rate of change of cost-of-living index: estimates for Bolivia, Colombia, Ecuador, Egypt, Guatemala, Nicaragua, Philippines, Sudan and Uruguay refer to the period 1960-1969; those for Uganda refer to the period 1960-1968; those for Mozambique refer to the period 1961-1969; those for Chad refer to the period 1961-1970; those for Zaire refer to the period 1963-1969.

^b Countries are listed in descending order of rate of growth of GDP.

^c Refers to exports of goods and services in constant 1960 prices.

^d Refers to rates of growth of volume of production.

^e Refers to volume index.

Part two — Indicators of development effort in key areas

Chapter I

Development effort in agriculture

41. The aim of this chapter is to present a methodological approach that may be used in assessing the agricultural performance of developing countries. Whenever possible, an illustration is provided by reviewing the information available for the 1953–1968 period. In section A, rates of growth of agricultural production, agricultural land area, and yields per hectare are examined. An attempt is also made to show what underlies the rates of increase in land productivity by looking at the efforts developing countries have been making to raise the tech-

nical level of the agricultural sector. Section B deals with methods which may be used to assess the contribution of the agricultural sector to economic growth. Finally, section C discusses certain aspects related to the distribution of agricultural income and wealth.

A. THE RATE OF GROWTH OF
AGRICULTURAL PRODUCTION
AND ITS MAJOR DETERMINANTS

42. Table 11 shows average annual rates of growth of total and per capita agricultural production for thirty-nine countries over the 1953–1968 period. The figures in

TABLE 11
Average annual rate of growth of total and per capita agricultural production, 1953–1968
(Percentages)

Country ^a	Rate of growth of agricultural production	Rank	Rate of growth of per capita agricultural production	Rank
Israel	8.3	1	4.8	1
Ecuador	5.7	2	2.5	3
Venezuela	5.6	3	1.8	7
Guatemala	5.5	4	2.4	5
Cyprus	5.2	5	3.9	2
Thailand	5.0	6	2.0	6
Mexico	4.6	7	1.4	8
Bolivia	4.4	8	2.5	3
Honduras	4.3	9	0.8	15
Costa Rica	4.3	9	0.4	21
Libya	4.2	11	0.9	13
Sudan	4.1	12	1.2	9
Republic of Korea	3.9	13	1.2	9
Panama	3.8	14	1.1	11
Malaysia	3.7	15	0.8	15
Brazil	3.7	15	0.9	13
Philippines	3.5	17	-0.1	26
Iran	3.3	18	0.5	20
Ceylon	3.2	19	0.8	15
Egypt	3.0	20	0.8	15
Ethiopia	2.9	21	1.1	11
Syrian Arab Republic	2.8	22	0.3	23
Colombia	2.8	22	-0.3	29
Peru	2.8	22	0.0	25
Pakistan	2.7	25	0.2	24
Burma	2.6	26	0.6	19
Iraq	2.5	27	-0.7	33
Paraguay	2.4	28	-0.1	26
Morocco	2.3	29	-0.5	32
Afghanistan	2.3	29	0.4	22
India	2.0	31	-0.3	29
Chile	1.9	32	-0.4	31
Dominican Republic	1.8	33	-2.1	38
Indonesia	1.6	34	-0.7	33
Argentina	1.5	35	-0.2	28
Tunisia	0.6	36	-1.0	35
Cuba	0.5	37	-1.3	36
Uruguay	0.0	38	-1.6	37
Algeria	-1.6	39	-3.8	39
Unweighted average	3.2		0.5	

Source: UNCTAD secretariat, based on FAO, *Production Yearbook*, 1969.

^a In descending order of rate of growth of agricultural production.

table 11 show a wide dispersion in the growth rates. While the unweighted average of the growth rates of total production was 3.2 per cent, they range from 8.3 to -1.6 per cent. However, two-thirds fall within the 5.0-2.0 per cent range. The figures on the growth of per capita agricultural output reveal that in twenty-five out of the thirty-nine countries included in table 11, agricultural output grew at a faster pace than population.

43. The growth of agricultural output may be usefully broken down into the following components: (a) expansion of the cultivated area; (b) increasing yields per hectare; and (c) changes in crop composition, *i.e.*, shifts from low-valued to high-valued crops. Statistical information with regard to the influence of the latter factor is not available in a systematic way for a large number of developing countries. On the basis of estimates for a small sample of developing countries, it appears that changes in crop composition are, in certain cases, a significant factor, but on the whole the expansion of agricultural output has been determined primarily by expansion in the cultivated area and increases in yields per hectare.

44. Regarding expansion of the cultivated area, it is generally agreed that although in the last two decades a significant source of agricultural growth has been land reclamation and the expansion of cultivation to virgin areas, this source of growth is likely to be less important in the future.¹⁹ Although data on agricultural land are scarce, of doubtful reliability, and not totally comparable, the available information has been used in table 12 to derive rates of growth of agricultural area and yields per hectare. The latter rates of growth should be interpreted as including the effects of increases in physical yields and in the value of output due to shifts in commodity composition.

45. According to the calculations shown in table 12, only in ten out of twenty-seven countries included in the analysis did yields per hectare rise at a rate of 2.0 per

¹⁹ See OECD, *Supply and Demand Prospects for Fertilisers in Developing Countries* (Paris, 1968), p. 14; and S. Ishikawa, *Economic Development in Asian Perspective* (Tokyo, Kinokuniya Bookstore Co., Ltd., 1967), p. 61.

TABLE 12
Average annual rate of growth of agricultural production, area
and yields per hectare, 1953-1968
(Percentages)

Country ^a	Rate of growth of agricultural production	Rate of growth of agricultural area	Rate of growth of yields per hectare	Percentage contribution of higher yields to the growth of production
Cyprus	5.2	—	5.2	100
Brazil	5.2 ^d	0.7 ^o	4.5	87
Mexico	6.0 ^d	1.8 ^e	4.2	70
Ecuador	5.7	1.6	4.1	72
Venezuela ^h	5.2	1.6	3.6	69
Morocco	2.3	-0.9 ^g	3.2	139
Israel	8.3	5.3	3.0	36
Republic of Korea	3.9	1.2	2.7	69
Egypt	3.0	0.8 ⁿ	2.2	73
Syrian Arab Republic	2.8	0.8	2.0	71
Ethiopia	2.9	1.1 ^o	1.8	62
Libya	4.2	(2.5) ⁿ	1.7	40
Thailand	5.0	3.4 ^m	1.6	32
Pakistan	2.7	1.2 ⁱ	1.5	56
Philippines	3.5	2.0 ^f	1.5	43
Chile	1.9	0.6 ^e	1.3	68
India	2.0	0.8 ^f	1.2	60
Indonesia	1.6 ^j	0.9 ^j	0.7	44
Argentina ^b	2.3	2.2	0.1	4
Ceylon	3.2	3.1	0.1	3
Peru	2.8	(3.2) ^g	-0.4	-14
Tunisia ^p	1.0	(1.6)	-0.6	-60
Uruguay	0.0	0.7 ^g	-0.7	...
Iraq ^k	1.6	(2.6)	-1.0	-63
Algeria	-1.6	-0.4	-1.2	75
Paraguay	2.4	(4.3) ^f	-1.9	-79
Burma	2.6	(4.9) ^g	-2.3	-88

Source: UNCTAD secretariat, based on FAO, *Production Yearbook*, various issues. Figures in parentheses refer to arable land only.

^a In descending order of rate of growth of yields per hectare.

^b 1960-1968 ^c 1949-1965 ^d 1952-1961 ^e 1952-1964 ^f 1951-1968

^g 1950-1960 ^h 1953-1967 ⁱ 1952-1963 ^j 1953-1965 ^k 1952-1965

^l 1952-1960 ^m 1953-1966 ⁿ 1947-1963 ^o 1954-1965 ^p 1952-1961

cent per annum or higher. Moreover, it seems that in some countries such as Brazil, Ecuador and Venezuela, the low rates of growth of agricultural area—and hence the high rates of increase in yields—were due to the constancy in the area devoted to permanent meadows and pastures, the data on which appear to be particularly unreliable. If only arable land is used to estimate the rates of growth of land under cultivation, a large share of the increase in yields reported for these countries disappears. Nevertheless, it is interesting to note that only in five countries did agricultural area grow faster than output, and in fourteen countries the contribution of higher yields to total growth exceeded 50 per cent.²⁰

46. The basic force behind increases in yields is technical change. Resource endowment considerations and the growing difficulty of many developing countries in providing productive occupations for their entire labour force would appear to call for the introduction of labour-using, capital-saving innovations. Moreover, even though it is not possible to classify technological innovations as being purely labour-saving or yield-increasing, most observers agree that the introduction of mechanical equipment has a primarily labour-displacing effect, and new forms of inputs such as commercial fertilizer, insecticides, pesticides, and improved seeds appear to be complementary to labour in that they primarily increase yields per hectare.²¹

47. Even though yield-increasing inputs do not require great on-the-farm capital expenditures, certain types of infrastructural outlays (e.g. irrigation, flood control, and drainage) are necessary for these inputs to yield optimal results.²² It is, therefore, important to gain an idea of the efforts developing countries have been exerting in providing themselves with the requisite infrastructural capital in agriculture. Although comparable data on such investments are not available for a sufficiently large number of countries, data compiled by FAO allow the calculation of rates of growth of irrigated land in twenty countries for the period 1953–1968. The results are shown in table 13. Nine countries show rates of growth of irrigation of 5 per cent per annum or higher, and four countries (Ecuador, Venezuela, Cuba and Algeria) have growth

TABLE 13
Average annual rate of growth of irrigated land, 1953–1968
(Percentages)

Country ^a	Rate of growth of irrigated land	Rank	Ratio of irrigated to arable land, 1953
Ecuador	19.7	1	1
Venezuela	16.3 ^b	2	1
Cuba	16.2 ^c	3	3
Algeria	11.9	4	1
Brazil	9.9 ^b	5	—
Colombia	8.2 ^b	6	2
Iran	8.1 ^d	7	13
Israel	5.3	8	18
Uruguay	5.0 ^e	9	1
Thailand	4.3	10	8
Jordan	4.2	11	3
Iraq	4.1 ^d	12	23
Argentina	3.4 ^b	13	3
Ceylon	3.2 ^d	14	13
Pakistan	2.4 ^e	15	32
Bolivia	2.1 ^b	16	2
Republic of Korea	1.9	17	25
India	1.9 ^f	17	13
Philippines	1.8 ^e	19	9
Egypt	0.9	20	100
Unweighted average	6.5		

Source: UNCTAD secretariat, based on FAO, *Production Yearbook*, various issues.

^a In descending order of rate of growth of irrigated land.

^b 1932–1964 ^c 1950–1964 ^f 1953–1967

^e 1952–1965 ^d 1953–1966 ^e 1953–1965

rates exceeding 10 per cent per annum. Only in four countries (the Republic of Korea, India, Philippines and Egypt) does the growth rate drop below 2 per cent per annum.

48. The rate of growth of land under irrigation should be considered only as a rough indicator of effort to raise land productivity. Countries which had already attained high ratios of irrigated to total arable land at the beginning of the period could have been expected to show lower rates of growth than countries with initially low irrigation ratios. Moreover, while some countries are endowed with adequate rainfall and natural soil moisture throughout the year, other countries require large expenditures on irrigation to create the same environmental conditions.

49. The above discussion on the forms of technical change which are appropriate to the resource endowment of developing countries suggests that special attention should be given to progress in the introduction of yield-increasing inputs. Because data on a substantial number of these inputs are not available, and since it would in any case be difficult to reduce them to a single expression, a proxy must be found. The proxy chosen is the rate of growth of fertilizer consumption. This variable is likely to be a good representative of the whole category of yield-increasing inputs.²³ Moreover, because new inputs

²⁰ For developing regions as a whole, FAO has estimated that, for twelve major crops, the contribution of increases in yields to the growth of output was 37 per cent during the 1948/52–1957/59 period and 51 per cent during the 1957/59–1966/68 period (see FAO, *The State of Food and Agriculture*, 1970, p. 142).

²¹ See, for example, Y. Hayami and V. Ruttan, "Factor Prices and Technical Change in Agricultural Development: The United States and Japan, 1880–1960", *Journal of Political Economy*, vol. 78, No. 5, September/October 1970, p. 1115; and M. Yudelman, R. Banerji and G. Butler, "The Use of an Identity to Examine the Association between Technological Changes and Aggregate Labour Utilization in Agriculture", *Journal of Development Studies*, vol. 7, No. 1, October 1970, p. 37.

²² S. Ishikawa, op. cit., pp. 84–85. The complementarity between fertilizer consumption and irrigation was also revealed for the countries in table 13 by regressing fertilizer consumption in 1961–1962, expressed in kilogrammes of plant nutrient per hectare of arable land, on the ratio of irrigated to total arable land (I):

$$C_f = 9.226 + 1.554 I \quad \bar{R}^2 = 0.36 \\ (0.798) \quad (3.493)$$

The figures in parentheses are t-ratios and \bar{R}^2 stands for the coefficient of multiple determination adjusted for degrees of freedom.

²³ Several authors stress the importance of fertilizers. See, for example, S. Ishikawa, op. cit., pp. 84–122; and Y. Hayami and V. Ruttan, op. cit.

TABLE 14

Average annual rate of growth of fertilizer consumption,
1952/53–1968/69 and 1961/62–1968/69
(Percentages)

Country *	1952/53–1968/69		1961/62–1968/69		Fertilizer consumption per hectare of arable land, 1961/62 (in kilogrammes of plant nutrient)
	Rate of growth	Rank	Rate of growth	Rank	
Iran	34.3	1	26.4	6	1.2
Iraq	28.9	2	27.2	5	0.2
Thailand	24.8	3	26.4	6	1.6
Nicaragua	24.4	4	32.7	2	4.5
Ghana	23.5	5	32.9	1	0.2
Pakistan	22.5	6	25.0	11	2.8
Republic of Viet-Nam	21.0	7	24.2	13	8.0
Equatorial Guinea	20.5	8	25.6 ^b	9	...
Bolivia	18.8	9	18.0 ^b	21	0.3
India	18.2	10	22.3	16	2.6
Ecuador	18.1	11	23.4	14	4.2
Ivory Coast	17.9	12	13.0	25	0.8
Senegal	16.7	13	12.7	27	1.3
Cambodia	14.7	14	25.3	10	0.3
Cameroon	14.7	14	26.3 ^b	8	...
Guatemala	14.4	16	13.0	25	10.0
Uruguay	14.3	17	3.3 ^b	45	15.3
Malagasy Republic	14.0	18	23.0	15	0.5
Jordan	13.2	19	11.0	29	1.7
Sudan	12.8	20	12.7	27	3.7
Indonesia	12.6	21	1.9	47	10.7
Dominican Republic	12.5	22	10.3	30	13.1
Uganda	12.3	23	8.2 ^b	34	0.6
El Salvador	11.8	24	10.3	30	...
Brazil	11.8	24	13.1	24	6.7
Argentina	11.3	26	24.7	12	0.5
Philippines	10.4	27	6.3	39	9.1
Cuba	10.0	28	18.9 ^b	20	65.1
Honduras	9.2	29	19.3	19	7.0
Jamaica	9.0	30	10.3	30	56.3
Syrian Arab Republic	8.9	31	6.6 ^b	37	3.6
Morocco	8.4	32	13.2	23	0.4
Chile	8.0	33	5.6	42	20.0
Republic of Korea	8.0	33	6.6	37	136.3
Costa Rica	7.7	35	7.0	36	30.2
Kenya	7.4	36	19.9 ^b	17	7.2
Cyprus	7.1	37	3.9	44	39.1
Lebanon	7.0	38	8.0	35	48.4
Nigeria	6.8	39	28.1	4	...
Mauritius	6.8	39	1.9	47	201.0
Ceylon	6.0	41	6.2	40	33.0
Venezuela	5.7	42	19.8 ^b	18	3.1
Zaire	5.2	43	28.5	3	...
Colombia	5.0	44	5.8	41	17.2
Israel	4.8	45	4.6	43	88.5
Mexico	3.4	46	14.4	22	8.1
Tunisia	3.1	47	9.2 ^b	33	4.7
Guyana	3.1	47	0.0	49	43.5
Barbados	2.4	49	-0.3	50	196.2
Peru	0.8	50	-2.8	52	34.8
Egypt	-1.4	51	3.2 ^b	46	85.4
Zambia	-5.2	52	-23.5	53	13.3
Algeria	-6.1	53	-2.2 ^b	51	8.1
Unweighted average	11.4		13.4		

Source: UNCTAD secretariat, based on FAO, *Production Yearbook*, various issues.

* In descending order of rate of growth of fertilizer consumption.

^b 1962/63–1968/69.

tend to be of a complementary nature, expansion in the use of the most representative one would tend to capture advances in the whole area.

50. Rates of growth of fertilizer consumption for fifty-three countries over the 1952/53–1968/69 and 1961/62–1968/69 periods are shown in table 14. These rates of growth are quite impressive and, together with the data on irrigation growth rates, confirm the impression that developing countries as a whole have been making considerable efforts to spur their agricultural development. For the 1952/53–1968/69 period, twenty-eight out of the fifty-three countries included in table 14 have growth rates of fertilizer consumption exceeding 10 per cent per annum, and only nine countries exhibit rates of growth below 5 per cent per annum. Rates of growth above 20 per cent per annum were experienced in Iran, Iraq, Thailand, Nicaragua, Ghana, Pakistan, the Republic of Viet-Nam and Equatorial Guinea. The evidence for the shorter period shows an acceleration in fertilizer consumption over time, the unweighted average of growth rates jumping from 11.4 to 13.4 per cent per annum.

51. As an indicator of agricultural development effort, the rate of growth of fertilizer consumption suffers from the same kinds of defects as the rate of growth of irrigated land. The rate of growth of fertilizer consumption is likely to be influenced by the consumption level attained at the beginning of the period and by the availability of water, either from irrigation or rainfall. In other words, a low rate of growth of fertilizer consumption is not necessarily an indicator of poor performance. In some cases substantial efforts may have been made in past periods, and simply maintained in the most recent one, or the country's situation regarding irrigation may have made it advisable to concentrate efforts on increasing the irrigation ratio.

52. An important development in the field of technical change in agriculture during the 1960s has been the adoption by a number of developing countries of new high-yielding cereal varieties. The two grains which have spread most rapidly are wheat, developed in the late 1950s in Mexico, and rice, developed in the early 1960s at the International Rice Research Institute of the Philippines.

53. The improved wheat varieties were quickly adopted in Mexico, and at present they are used in all of Mexico's wheat area. In Pakistan, 12 per cent of the wheat area was planted to new varieties during the 1967/68 season. The corresponding figure for India²⁴ was 20 per cent. It is estimated that in 1968/69, 7 per cent of the area devoted to rice in south and southeast Asia was under high-yielding varieties. In 1968/69, the leading country in the area was the Philippines with 30 per cent, followed in 1969/70 by Malaysia with 16 per cent, India with 9 per cent, and Burma and the Republic of Vietnam with 8 per cent.²⁵ In 1967/68, roughly 30 per cent of

West Pakistan's rice area was planted to high-yielding varieties.²⁶

54. The basic advantages of the new varieties are their higher responsiveness to fertilizers and irrigation and, in some instances, their shorter growing period, which facilitates multiple cropping. There are, however, some problems which are conspiring against their spread. Besides the problem posed by the requirements of carrying out adaptive research and concurrently providing irrigation and fertilizers, Asian experience during recent years also raises the question of their effects on income distribution. If the adoption of high-yielding varieties occurs in the context of a rapid increase in demand and, moreover, it leads to a greater increase in food output than in the demand for food, urban dwellers are better off because of lower food prices, and farmers, large and small, are better off because the rise in output is usually more than sufficient to compensate for the drop in prices. In that case, the over-all impact on economic welfare, employment and income distribution would be positive. However, if the result is to displace the small farmer tilling un-irrigated land and to concentrate the same total output on the larger, irrigated units, unemployment may grow and income distribution worsen. The problem is likely to be aggravated if employment opportunities outside agriculture are not expanding. There is evidence that the recent experience of some Asian countries conforms more closely to the latter than to the former picture.²⁷

B. THE CONTRIBUTION OF AGRICULTURE TO ECONOMIC DEVELOPMENT

55. Although the contribution of the agricultural sector to economic development may take many forms, most authors have stressed the importance of the net flow of resources out of agriculture as a means of financing the development process.²⁸ This net outflow may be deliberately extracted by the Government by means of taxation, or it may emerge from the operation of the market mechanism as a result of vigorous growth in agricultural production and productivity.

56. The measurement of the agricultural sector's contribution to financing economic development is a complex matter. Data availability does not permit a direct measurement of the net inter-sectoral flow of resources. A rough idea of attempts by the Government to channel a share of the marketable surplus of the agricultural sector to development could be gained by studying the ratio of agricultural taxation to total tax revenues, total government expenditures, or development expenditures (government investment plus expenditures on health and education). But the requisite data are not available for a sufficiently large number of countries.

²⁴ See F. L. Corty, *Rice—New Cereal Varieties* (Washington, D.C., Agency for International Development, 1969), p. 10.

²⁵ J. Willett, *op. cit.*, pp. 23–24; and FAO, *op. cit.*, p. 162.

²⁶ It should be mentioned that some authors hold the view that, at the stage in which most developing countries find themselves, their agricultural development usually requires large investments in infrastructure which must be financed with net capital inflows into agriculture. Hence, they view agriculture's role as one of minimizing the sector's demands on the non-agricultural economy. See, for example, S. Ishikawa, *op. cit.*, p. 347.

²⁴ See J. Willett, *The Impact of New Varieties of Rice and Wheat in Asia* (Washington, D.C., Agency for International Development, 1969), pp. 7–8.

²⁵ See FAO, *The State of Food and Agriculture, 1970*, p. 82.

57. A net transfer of resources can come about as the result of rapid agricultural expansion. If the rate of growth of the marketable surplus exceeds the rate of growth of demand for agricultural commodities by the non-agricultural sector, the terms of trade of agriculture vis-à-vis non-agriculture will fall and, because urban wages are spent mostly on food, wages will decline relatively to the price of manufactures. This implies that industrial profits are likely to rise and, if they are reinvested, the rate of capital formation will tend to increase.

58. On the other hand, an inadequate expansion of agricultural output may have retarding effects on the overall pace of development. First, if the growth in the demand for agricultural commodities stemming from industrialization and urbanization outstrips the growth of production, relative agricultural prices will rise in the cities, and industrial output and capital formation will slow down. Secondly, agricultural imports are likely to rise, putting pressure on the balance of payments. Thirdly, the experience of a number of countries has shown that an increase in relative agricultural prices may touch off an inflationary spiral.²⁹

59. Therefore, the problem of assessing the agricultural sector's contribution to development may be tackled from the point of view of agriculture's ability to meet the demands imposed upon it by the process of economic development. This implies deriving an index of excess demand for agricultural commodities. It may be said that countries whose output growth has been sufficient to meet the growth in demand have not experienced a serious agricultural constraint on their economic growth, and the binding constraint must be sought elsewhere. On the other hand, countries with excess demand are likely to have come up against an agricultural bottle-neck.

60. One may distinguish three sources of demand for agricultural commodities: demand for food, demand for agricultural raw materials, and export demand. In the absence of firm data on the share of exports and raw materials in total demand, estimates of total demand for agricultural commodities become pure guesswork. Therefore, the analysis is confined to the food sub-sector. There are additional reasons why food production should be singled out for special consideration. The significance of food production for the economic welfare of developing countries is obvious. Moreover, with the exception of the more industrialized developing countries, the bulk of agricultural production destined for the home market is composed of foodstuffs. Since most of the major export crops of developing countries are non-foods,³⁰ concentration on food production makes it easier for the analyst to abstract at least partially from the influence of foreign markets on domestic production. In addition, data for the food sub-sector, such as relative food prices and income elasticities of demand derived from consumer budget studies, are more readily available. Finally, foodstuffs constitute a more homogeneous group of commodities

than total agricultural production, and it was hoped that the relationships between the different variables studied would thus come through more clearly.

61. In table 15, an indicator of excess demand for food (I_f) is calculated using the formula:

$$I_f = \frac{r_s - r_d}{r_d}$$

Where r_s = rate of growth of food production
 r_d = rate of growth of demand for food

62. The rate of growth of demand for food (r_d) has been estimated by multiplying the income elasticity of demand for food (E_y)³¹ by the rate of growth of per capita GDP (r_y), and adding to the result the rate of growth of population (r_n):

$$r_d = E_y \cdot r_y + r_n$$

63. Leaving aside the assumptions that are necessary in order to construct it, the indicator of excess demand derived above is open to other serious objections. The most important one may be drawn from the theory of comparative advantage. A country need not rely on domestic production and can satisfy its demand for food in an indirect way through foreign trade by exporting a few crops or non-agricultural commodities and importing the food it needs—i.e. vigorous export growth lessens the pressure on food production, especially if a country's exports are non-foods.³²

64. If the index of excess demand can be interpreted as indicating the existence of a food production bottle-neck, from table 15 it would appear that only eleven out of the thirty-four countries included in the analysis did not experience a food production constraint on their

³¹ Use was made of income elasticities of aggregate food consumption (excluding tropical beverages) measured at farm gate prices obtained by FAO from consumer budget surveys. See FAO, *Agricultural Commodities—Projections for 1975 and 1985*, vol. II (CCP 67/3/Rev.) (Rome, 1967), pp. 28-33.

³² This hypothesis is supported by the results of regression analysis with a pooled time-series and cross-section sample for 48 countries over the 1958-1968 period. While agricultural exports were found to be positively correlated with agricultural value added, non-agricultural exports are negatively correlated with agricultural value added, and agricultural imports are negatively associated with the share of agriculture in total exports:

$$(1) \log v_a = 1.075 \log y - 0.053 (\log y)^2 + 0.177 \log (X_a/X_t) \quad \bar{R}^2 = 0.71$$

(67.128) (18.297)
(15.536)

$$(2) \log v_a = 1.020 \log y - 0.051 (\log y)^2 + 0.100 \log x_a - 0.085 \log x_{na} \quad \bar{R}^2 = 0.69$$

(56.200) (14.954)
(8.402) (8.813)

$$(3) \log m_a = -4.918 + 2.107 \log y - 0.129 (\log y)^2 - 0.361 \log N - 0.120 X_a/X_t \quad \bar{R}^2 = 0.71$$

(3.802) (4.485) (3.003)
(14.983) (3.613)

where v_a = per capita GDP originating in agriculture
 y = per capita GDP
 X_a = agricultural exports
 X_t = total exports
 x_a = per capita agricultural exports
 x_{na} = per capita non-agricultural exports
 m_a = per capita agricultural imports
 N = population

²⁹ See M. Edel, *Food Supply and Inflation in Latin America* (New York, Praeger, 1969), pp. 65 and 137.

³⁰ Beverages such as coffee, tea, and cocoa are classified as non-foods by FAO.

TABLE 15
Index of excess demand for food,^a 1953-1968
(Percentages)

Country ^b	Rate of growth of food production	Income elasticity of demand	Rate of growth of domestic demand for food ^c	Index of excess demand ^c	Rank	Rank according to rate of growth of production
Israel	7.7	0.13	4.2	83	1	1
Ecuador	5.7	0.54	3.8	50	2	3
Bolivia	4.6	0.66	3.1	48	3	5
Venezuela	5.9	0.40	4.4	34	4	2
Mexico	5.0	0.36	4.3	16	5	4
Ceylon	3.9	0.63	3.4	15	6	9
Honduras	4.0	0.46	3.6	12	7	8
Sudan	3.8	0.52	3.5	9	8	11
Brazil	4.1	0.30	3.8	8	9	7
Thailand	4.6	0.44	4.6	—	10	5
Guatemala	3.8	0.42	3.8	—	10	11
Republic of Korea	3.9	0.47	4.4	-11	12	9
Panama	3.8	0.37	4.3	-12	13	11
Egypt	3.1	0.50	3.6	-14	14	16
Argentina	1.7	0.14	2.0	-15	15	30
Burma	2.7	0.48	3.2	-16	16	20
Philippines	3.4	0.61	4.1	-17	17	14
Morocco	2.4	0.55	2.9	-17	17	23
Ethiopia	2.3	0.56	2.9	-21	19	24
Colombia	2.8	0.42	3.6	-22	20	18
Paraguay	2.3	0.35	3.0	-23	21	24
Indonesia	1.7	0.68	2.3	-26	22	30
Pakistan	2.7	0.72	3.9	-31	23	20
Peru	2.8	0.48	4.1	-32	24	18
Costa Rica	3.4	0.40	5.0	-32	24	14
Chile	1.9	0.43	3.2	-41	26	27
Iran	3.0	0.67	5.5	-46	27	17
India	1.9	0.72	3.5	-46	27	27
Iraq	2.6	0.58	4.8	-46	27	22
Dominican Republic	2.0	0.45	3.7	-46	27	26
Syrian Arab Republic	1.8	0.49	4.0	-55	31	29
Tunisia	0.5	0.57	2.9	-93	32	32
Uruguay	0.1	0.15	1.4	-93	33	33
Algeria	-1.5	0.46	2.3	-165	34	34

Sources: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, official national sources, and FAO, *Production Yearbook, 1969 and Agricultural Commodities — Projections for 1975 and 1985*, vol. II (CCP 67/3/Rev.), pp. 28-33.

^a Excess demand is indicated by a negative sign.

^b In descending order of index of excess demand.

^c For definitions and concepts, see discussion in the text.

economic growth. However, in view of the crudeness of the data and methods used, the results may be subject to a wide margin of error. If countries are divided into three groups—those having more than 20 per cent excess supply (in terms of growth rates), those between 20 per cent excess supply and 20 per cent excess demand, and countries with excess demand of more than 20 per cent—four countries do not appear to have had a serious food production problem, fourteen countries fall on the borderline between excess supply and excess demand, and sixteen countries appear to have experienced a serious food production constraint on their economic growth.

65. It is often argued that food imports are the other side of the coin of domestic production, in the sense that a shortfall in output relative to demand tends to be reflected in an increase in imports. Therefore, a survey of import growth rates would appear to be necessary to obtain a

more complete view of development efforts in the agricultural area. However, since food imports are also influenced by the availability of foreign exchange, the rate of growth of food imports would partially reflect factors other than the capacity of domestic agriculture to meet demand. In other words, the rate of growth of the purchasing power of exports will affect the extent to which a country is able to satisfy its demand for food with imports.

66. The data do seem to suggest that the growth in food imports, at least over the 1958-1968 period for twenty-one countries for which data were available, is partially the result of inadequate growth in domestic supply.³³ In addition to domestic food production, the

³³ Results obtained by Edelman on the basis of time-series data for eight Latin American countries tend to confirm these findings. See M. Edelman, *op. cit.*, pp. 43-60.

TABLE 16
Food import performance of selected developing countries, 1958–1968
(Percentages)

Country	Rate of growth of food imports	Rank ^a	Rate of growth of total exports	Excess demand ^b	
				Index	Rank
Venezuela	-6.2	1	2.9	63	2
Burma	-4.6	2	-8.5	-37	17
Colombia	-3.3	3	3.0	-18	15
Uruguay	—	4	1.8	-83	20
Ceylon	1.3	5	1.5	22	3
Ecuador	1.4	6	3.0	8	6
Israel	2.5	7	13.5	79	1
Panama	2.8	8	10.0	-15	13
Thailand	2.9	9	10.8	-4	10
Costa Rica	2.9	9	9.9	-17	14
Paraguay	3.7	11	0.9	-21	16
Egypt	5.6	12	1.8	-6	11
Brazil	6.2	13	4.0	14	4
Argentina	6.5	14	4.3	11	5
Guatemala	7.5	15	9.5	0	8
Chile	8.1	16	5.3	-59	18
Honduras	8.3	17	9.7	8	6
India	9.2	18	2.4	-59	18
Philippines	9.6	19	8.3	-3	9
Republic of Korea	12.2	20	24.2	-14	12
Dominican Republic	14.4	21	-0.6	-106	21

Sources: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, official national sources, and FAO, *Production Yearbook and Trade Yearbook*, various issues.

^a From lowest to highest rate of growth.

^b For definition, see text. In the column showing the index, excess demand is indicated by a negative sign.

rate of growth of total exports also appears to be a significant explanatory variable for the rate of growth of food imports. The following results were obtained:

$$(a) \quad r_{mf} = 7.763 - 2.011 r_s + 0.600 r_{xt} \quad \bar{R}^2 = 0.47 \\ (4.291) \quad (3.698) \quad (3.968)$$

$$(b) \quad r_{mf} = 0.950 - 0.068 I_f + 0.468 r_{xt} \quad \bar{R}^2 = 0.37 \\ (0.711) \quad (2.904) \quad (3.070)$$

where I_f = index of excess demand

r_{mf} = rate of growth of food imports

r_s = rate of growth of domestic food supply

r_{xt} = rate of growth of exports of goods and services

67. Table 16 shows the rates of growth of food imports for twenty-one countries over the 1958–1968 period. A comparison of import growth rates with the index of excess demand, recalculated for the 1958–1968 period, shows that while Venezuela and Ceylon appear high in the ranking according to both indicators, the Dominican Republic, India and Chile exhibit the poorest relative standing. Some countries change their relative position. Countries exhibiting a more satisfactory performance according to the import rather than excess demand indicator are Burma, Colombia and Uruguay. The reverse is true of Israel, Brazil, Argentina, Guatemala, Honduras, the Philippines and the Republic of Korea. The variation in the relative rankings of some countries such as Burma, Israel, Guatemala, Honduras, Philippines and the Republic of Korea may be explained by the influence exerted by the rate of growth of exports. On the other hand, in the cases of Argentina and Uruguay, the change in ranking

might reflect the fact that these countries are net food exporters, and that shortfalls in domestic production result primarily in changes in the exportable surplus rather than in food imports.

68. If prices were free to adjust to market forces, a deficit in domestic food supply relative to demand would express itself in relative food price increases. The pressure on food prices would, however, be moderated by food imports whenever the country's import capacity allowed an increase in imports. Since import growth rates are influenced by variables other than domestic performance, changes in relative food prices cannot be regarded as a pure indicator of the ability of domestic supply to meet demand. Besides, in order to avoid inflation and increases in the prices of necessities, the Governments of developing countries usually place food prices under strict control.

69. Nevertheless, relative price changes and the indicator of excess demand appear to be roughly related. Rates of change in relative food prices during 1958–1968, shown in table 17, were obtained by dividing the index of food prices by the cost of living. With the exception of Ecuador and Morocco, all countries experiencing positive rates of change in relative food prices also exhibited a deficit of supply relative to demand growth. And excluding the Dominican Republic, Algeria and Bolivia, declines in relative prices were associated with a growth in supply exceeding demand expansion. In the case of the Dominican Republic, it seems that severe excess demand resulted in a large rate of growth in imports rather than in a rise in relative food prices.

TABLE 17
Annual average rates of change of relative food prices, 1958-1968
(Percentages)

Country	Rate of change of relative food prices	Rank ^a	Index of excess demand ^b	Rank
Bolivia	-1.5	1	-41	26
Israel	-1.3	2	79	1
Honduras	-0.7	3	8	7
Brazil	-0.6	4	14	5
Venezuela	-0.6	4	63	2
Argentina	-0.5	6	11	6
Guatemala	-0.3	7	0	10
Ceylon	-0.1	8	22	3
Algeria	-0.1	8	-250	33
Dominican Republic	-0.1	8	-106	31
Sudan	0.0	11	3	9
Costa Rica	0.0	11	-26	21
Mexico	0.0	11	-7	15
Morocco	0.1	14	16	4
Tunisia	0.2	15	-137	32
Uruguay	0.4	16	-83	30
Panama	0.4	16	-15	18
Colombia	0.4	16	-18	19
India	0.5	19	-59	28
Peru	0.6	20	-32	22
Pakistan	0.7	21	-40	25
Ecuador	0.7	21	8	7
Thailand	0.8	23	-4	12
Burma	0.8 ^c	23	-37	24
Iraq	0.8	23	-8	16
Philippines	1.0	26	-3	11
Syrian Arab Republic	1.0	26	-6	13
Iran	1.0	26	-51	27
Republic of Korea	1.1	29	-14	17
Egypt	1.4	30	-6	13
Chile	1.4	30	-59	28
Paraguay	1.7	32	-21	20
Indonesia	1.7	32	-32	22

Sources: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, official national sources, and FAO, *Production Yearbook*, 1969.

^a From lowest to highest rate of change of relative food prices.

^b For definition, see text. Excess demand is indicated by a negative sign.

^c 1958-1964.

70. Table 17 shows that despite efforts exerted by Governments to control them, relative food prices increased over the 1958-1968 period in twenty out of the thirty-three countries in the sample. The rate of increase was 1.0 per cent per annum or more in Indonesia, Paraguay, Chile, Egypt, the Republic of Korea, Iran, Syrian Arab Republic and the Philippines. In three countries relative food prices remained stable, and in ten countries they declined.

C. INCOME AND WEALTH REDISTRIBUTION

71. Any study of agricultural development effort would be incomplete without a discussion of efforts by developing countries to effect changes in the extremely unequal distribution of income and wealth prevailing in the countryside. Besides its immediate welfare impact on the majority of the rural population, income and wealth redistribution appears to be necessary to create an economic and

social environment more conducive to increases in the efficiency of resource use in agriculture.

72. The basic determinant of income and wealth distribution in agriculture is land ownership. Although the problems posed by prevailing land tenure structures vary from region to region and from country to country, the need for reform is almost universal.

73. Many developing countries have enacted land reform legislation in the last two decades. However, its scope and extent vary from case to case. While in some countries (e.g. Bolivia, Cuba, Egypt, Iraq, Peru) land reform was part and parcel of a social revolution, in most countries it has been attempted within the framework of the existing social structure. Therefore, it is difficult to capture in a single indicator the complex and far-reaching effects of land tenure reforms. Nevertheless, if data were available, certain kinds of ratios would help to elucidate progress in this area. The following indicators would be

useful: (a) the change over time in some measurement—e.g. a Gini ratio—of concentration in land ownership; (b) the area cultivated by tenants, as a share of total arable land; and (c) the number of land fragments per acre and the average distance between fragments. While the first measure seems to be more applicable to Latin American countries, the latter two appear to describe best the land tenure situation of Asian countries. A measure of inequality in the distribution of rural incomes or consumption would summarize the effects of the land tenure structure, whatever its specific characteristics, and a reduction in the inequality indicator would be a good proxy for improvements in the land tenure situation.

Chapter II

The manufacturing sector

74. It is generally agreed that the modernization of an economy is intimately bound up with the growth of its industrial sector. This chapter analyses the performance of manufacturing industry in selected developing countries

over the last two decades. Section A deals with the over-all rate of growth of output, section B discusses various measures of gain in the productivity of the factors of production, and section C reviews the question of labour absorption.

A. THE RATE OF GROWTH OF OUTPUT

75. Table 18 provides a simple ranking of twenty-seven developing countries by their trend rate of growth of manufacturing output over the periods 1950–1969, 1950–1960 and 1960–1969. Taken as a group, these developing countries experienced an unweighted average growth rate of 7.0 per cent per annum for the entire period, and for the sub-periods 6.8 and 7.4 per cent, respectively. Each of the countries in table 18 performed better, in terms of crude growth rates, in manufacturing than in agriculture; for a majority of them, growth in manufacturing is at least twice as high as in agriculture. Of the twenty-seven countries listed in table 18, seventeen improved their performance during the 1960s. This improvement was concentrated, however, among those countries that had also grown fastest during the 1950s. Particularly good perfor-

TABLE 18

Average annual rates of growth of manufacturing production for selected countries,
1950–1969, 1950–1960 and 1960–1969^a
(Percentages)

Country	1950–1969		1950–1960		1960–1969	
	Rate of growth	Rank	Rate of growth	Rank	Rate of growth	Rank
Pakistan	13.7	1	17.4	1	10.1	6
Republic of Korea	12.5	2	12.1	3	17.8	1
Egypt	11.7	3	8.0	9	10.5	4
Panama	10.0	4	8.1	8	10.7	3
Turkey	9.8	5	10.3	5	13.3	2
Venezuela	9.5	6	12.7	2	7.0	14
Nigeria	9.0	7	10.6	4	8.0	11
Nicaragua	8.1	8	7.0	12	10.4	5
Philippines	7.7	9	10.3	5	6.0	15
Costa Rica	7.7	9	7.4	11	9.0	8
Peru	7.7	9	7.0	12	7.6	12
Mexico	7.7	9	7.0	12	8.7	9
Brazil	7.6	13	8.8	7	5.0	21
El Salvador	7.2	14	5.6	18	9.2	7
Honduras	7.1	15	6.3	15	8.3	10
India	6.5	16	6.1	17	5.4	18
Colombia	6.4	17	7.5	10	5.4	18
Kenya	5.6	18	4.8	19	6.0	15
Ecuador	5.1	19	4.4	20	5.9	17
Chile	4.5	20	4.0	22	4.6	22
Dominican Republic	4.3	21	6.3	15	2.1	27
Guatemala	4.3	21	4.4	20	4.2	24
Morocco	3.7	23	3.7	23	3.4	25
Paraguay	3.5	24	1.8	25	5.1	20
Haiti	2.8	25	2.6	24	3.0	26
Argentina	2.7	26	1.8	25	4.4	23
Bolivia	2.5	27	–1.7	27	7.5	13
Unweighted average	7.0		6.8		7.4 ^b	

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, *inter alia* *The Growth of World Industry*, various issues.

^a For some countries selected periods are slightly different, depending upon availability of data.

^b Data for a larger sample of 33 countries for the period indicates an unweighted growth rate of 7.7 per cent.

mance was recorded in the Republic of Korea, Mexico and Egypt—countries which registered even higher growth rates during the 1960s than their significantly above average rates during the 1950s.

76. The figures in table 18 should be interpreted with caution. In most circumstances, rates of growth of manufacturing production depend not only on a country's effort to develop its industrial sector but also on its stage of development and on the situation of and the policies applied in other sectors of the economy. In the first place, attainable rates of growth seem to be negatively correlated with the level of industrialization. Statistically, any given absolute increment in production will result in a higher rate of growth the smaller is the industrial base. Besides, countries in the early stages of industrialization have untapped markets for light consumer goods currently imported. As industrialization proceeds, the further growth of the manufacturing sector has historically depended on the development of manufactured exports and on the extension of import substitution to the intermediate and capital goods categories, and this is considerably more difficult to achieve.³⁴

77. Secondly, the rate of growth of manufacturing production is often the end result of a number of causes, some of which cannot be modified over the short run. Rapid industrialization usually depends on the removal of certain bottle-necks which are a constraint to economic growth. Some of these are the size of the agricultural surplus, the availability of foreign exchange to import the required industrial inputs which the country cannot produce itself and the supply of skills appropriate to a modern industrial economy. Statistical analysis of the first two factors for twenty-one countries for the 1953–1968 period shows that manufacturing growth rates were related to the rate of growth of per capita agricultural output (r_a), a proxy for the growth in the agricultural surplus, and the rate of growth of imports (r_m), which stands for the expansion in foreign exchange availability. The results were:

$$r_{om} = 5.685 + 0.737 r_a + 0.335 r_m \quad \bar{R}^2 = 0.33 \\ (4.703) \quad (2.422) \quad (2.362)$$

Efforts in the direction of removing these constraints are slow in maturing and therefore are not sufficiently reflected in a country's manufacturing growth record.

B. THE RATE OF GROWTH OF FACTOR PRODUCTIVITY

78. Output growth may be obtained by increasing the volume of resources used in production or by raising the productivity of those resources. Particular significance attaches to the latter source of growth because it is the main determinant of rising incomes per worker and the competitiveness in world markets of a country's manufacturers. In order to assess progress in increasing the productivity of the factors employed in manufacturing, it

would be desirable to adjust the growth rates of output shown in table 18 for the effects on production of increases in the labour force and the capital stock. In this way a measure would be obtained of that part of the growth rate which could be attributed to improvements in efficiency of resources used. This kind of analysis is hampered by the unavailability of data for a sufficiently large number of countries.

79. The capital-output ratio has often been regarded as a rough indicator of the efficiency with which capital—the scarce resource for most developing countries—is used. However, international comparisons are marred by the fact that, since capital-output ratios vary from sector to sector, the aggregate capital-output ratio is unduly influenced by a country's product mix. In order to draw meaningful inferences, a capital-output norm for each country would be required. Similarly, the rate of change of the capital-output ratio will reflect not only changes in efficiency but also changes in the commodity composition of the manufacturing sector. An additional factor that limits the usefulness of international comparisons of capital-output ratios is the wide variation among countries in the price relation between capital goods and aggregate output.

80. The rate of growth of labour productivity may be considered a proxy for the growth in total factor productivity.³⁵ An index of labour productivity alone, however, is subject to an upward bias since it subsumes the contributions to output from capital equipment and better utilization, improved organization of production, and technical progress.³⁶ Owing to data limitations, it has not been possible to construct an index of "pure" labour productivity by eliminating the contributions to output from other factor services. However, since labour is an important factor input, it may be expected to provide an approximation to an index of total efficiency.

81. Table 19 shows a ranking of countries according to the average annual rate of growth of labour productivity in manufacturing industry for a group of twenty-three developing countries. The average growth in productivity of 4.3 per cent for the whole group conceals considerable variation among countries: while in the Republic of Korea and Egypt it is over 7 per cent per annum, for Nigeria, Uganda, Chile and Argentina it is less than 3 per cent. Regarding the contribution of productivity to growth, calculated by dividing the rate of growth of productivity by the rate of growth of output, the figures in the third column of table 19 indicate that it has been an important source of growth, averaging 55 per cent for the sampled countries.

³⁵ The rate of growth of labour productivity (r_p) may be obtained by subtracting the rate of growth of employment (r_{em}) from the rate of growth of output (r_{om}). Thus: $r_p = r_{om} - r_{em}$.

³⁶ The effects of higher capital intensity and size of plant on labour productivity were tested for a sample of observations drawn from 15 branches of industry in 13 developing countries over the 1957–66 period. The explanatory variables are the share of non-wage value added (NWVA), used as a proxy for the degree of capital intensity, and value added per establishment (VAES), used as a proxy for the size of establishment and scale effects. The dependent variable is the average productivity of labour (APL).

$$\log APL = 3.574 + 0.541 \log NWVA + 0.771 \log VAES \\ (7.297) \quad (4.019) \quad (12.324)$$

$$\bar{R}^2 = 0.54$$

³⁴ The hypothesis that rates of growth of manufacturing production (r_{om}) are negatively correlated with the share of manufacturing in GDP (v_m) was tested for 28 countries over the 1953–1968 period. Despite the low coefficient of multiple determination—which indicates that additional variables are needed to explain variations in the growth rates—the results are of some interest:

$$r_{om} = 10.979 - 0.191 v_m \quad \bar{R}^2 = 0.18 \\ (9.553) \quad (2.481)$$

TABLE 19
Indicators of labour productivity in manufacturing industry
for selected developing countries, 1953-1968

Countries ranked by rate of growth of output	Rate of growth of labour productivity (percentage)	Rank	Share of labour productivity in output growth ^a	Rank
Republic of Korea	7.4	1	0.53	14
Egypt	7.1	2	0.57	11
Pakistan	6.2	4	0.53	14
Panama	3.1	17	0.29	22
Israel	4.8	9	0.46	17
Iran	6.2	4	0.60	10
Turkey	3.3	15	0.36	21
Nigeria	1.0	23	0.11	23
Syrian Arab Republic	4.7	11	0.54	13
Tanzania, United Republic of	4.8	9	0.56	12
Venezuela	6.9	3	0.84	1
Mexico	5.0	8	0.61	8
Peru	3.0	18	0.39	19
Brazil	5.1	7	0.70	4
El Salvador	2.6	19	0.37	20
Honduras	5.5	6	0.78	2
Philippines	4.7	11	0.69	5
India	3.2	16	0.50	16
Uganda	2.5	22	0.42	18
Colombia	4.0	13	0.67	7
Guatemala	3.5	14	0.78	2
Chile	2.6	19	0.61	8
Argentina	2.6	19	0.68	6
Unweighted average	4.3		0.55	

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, *inter alia*, *The Growth of World Industry*, various issues, and official national sources.

^a Rate of growth of productivity divided by rate of growth of output.

82. It is usually asserted that in the manufacturing sector high rates of growth of labour productivity are associated with high rates of growth of production. This relationship would reflect the influence of factors such as learning by doing and economies of scale.³⁷ This hypothesis was tested for twenty-one countries over the 1953-1968 period. The results are given below:

$$r_p = 1.818 + 0.385 r_{om} \quad \bar{R}^2 = 0.37 \\ (1.971) \quad (3.678)$$

83. Useful as these results may be, they do not in themselves provide an adequate basis for considering the growth of labour productivity as an indicator of total resource efficiency in the manufacturing sector.

C. THE GROWTH IN MANUFACTURING EMPLOYMENT

84. An important objective of an industrialization strategy is to create additional employment opportunities for the growing labour force in non-traditional activities. However, the experience of developing countries indicates that the demand for labour in the manufacturing sector has not expanded at a satisfactory rate, given the rate of

growth of output. The dimensions of the problem may be briefly stated: for the developing countries as a whole, the growth of the labour force is expected to accelerate from a rate of 1.7 per cent during 1950-1965 to 2.3 per cent during 1970-1980. In the populous regions of south and east Asia, in Central and South America, and in North Africa, the growth in labour force will be substantially higher than the average; and the rate of growth of the urban population will be even greater than the over-all rate of growth of the labour force.

85. Table 20 shows average growth rates in manufacturing employment for twenty-three developing countries over the 1953-1968 period. The unweighted mean value of 3.8 per cent conceals wide inter-country differences, the rate of growth of employment ranging from 8.0 to 1.0 per cent. The third column in table 20 provides an indicator of labour absorption, measured as the elasticity of labour demand with respect to output growth and calculated as the ratio of the rate of growth of employment to that of output. While the unweighted average elasticity for the whole group is 0.44, the figures range from a high of 0.89 to a low of 0.16. Only a third of the twenty-three countries sampled have an elasticity coefficient significantly above average.

86. Among the forces affecting the rate of growth of employment are the labour-saving bias embedded in modern industrial technology, changes in the composition of manufacturing output, the evolution of relative factor

³⁷ See, for example, *Economic Survey of Europe in 1969, Part I, Structural trends and prospects in the European economy* (United Nations publication, Sales No. E.70.II.E.1), p. 65.

TABLE 20
Indicators of employment in manufacturing industry
for selected developing countries, 1953-1968

Countries ranked by rate of growth of output	Rate of growth of employment (percentage)	Rank	Elasticity of labour employment *	Rank
Republic of Korea	6.6	3	0.47	9
Egypt	5.4	7	0.43	13
Pakistan	5.6	5	0.47	9
Panama	7.6	2	0.71	2
Israel	5.6	5	0.54	7
Iran	4.1	10	0.40	14
Turkey	5.9	4	0.64	3
Nigeria	8.0	1	0.89	1
Syrian Arab Republic	4.0	11	0.46	11
Tanzania, United Republic of	3.7	12	0.44	12
Venezuela	1.3	21	0.16	23
Mexico	3.0	15	0.39	15
Peru	4.6	8	0.61	5
Brazil	2.2	16	0.30	20
El Salvador	4.5	9	0.63	4
Honduras	1.5	20	0.22	21
Philippines	2.1	17	0.31	19
India	3.3	14	0.50	8
Uganda	3.5	13	0.58	6
Colombia	2.0	18	0.33	17
Guatemala	1.0	23	0.22	21
Chile	1.7	19	0.39	15
Argentina	1.2	22	0.32	18
Unweighted average	3.8		0.44	

Source: UNCTAD secretariat, based on data of the Statistical Office of the United Nations, *The Growth of World Industry*, various issues, and official national sources.

* Rate of growth of employment divided by rate of growth of output.

prices, and the growth in production. The latter was used as an explanatory variable in investigating the variation in employment growth for a sample of twenty-one countries over the 1953-1968 period. The results are given below:

$$r_{em} = -1.818 + .615 r_{om} \quad \bar{R}^2 = 0.62 \\ (-1.971) \quad (5.880)$$

87. Faster output growth appears to be a significant determinant accounting for 62 per cent of the variation in employment growth. The impact of other variables on employment growth cannot be examined at this stage owing to lack of sufficiently disaggregated data.

Chapter III

Price stability and government policies

88. Price stability cannot be considered an economic end by itself. The fact that maintenance of price stability constitutes an important ingredient of economic policy in most countries is because of the widely held belief that rising prices tend to hinder the process of economic development and to exercise a negative effect on the patterns of income distribution, production and expenditure from the viewpoint of social welfare. Inflation is considered harmful on these grounds even by many of those who recognize that, in some circumstances, it may encourage business enterprise by reducing the real burden of interest and of debt repayments falling on the entrepreneurial class.

89. Some of the more important drawbacks of inflation are the following. First, unless a rise in prices is predictable, it introduces an element of uncertainty into business transactions which may seriously complicate and, at times, render entirely impossible, a rational planning of investment and consumption expenditures. Secondly, inflation often has an adverse effect on the balance of payments on both current and capital accounts. A rise in domestic prices encourages imports and discourages exports unless the rates of exchange are varied simultaneously. Inflation would also tend to stimulate imports by encouraging unproductive investment in such items as precious metals, jewellery, works of art etc. bought abroad as a protection against the depreciation of the purchasing power of money. An outflow of capital may also be induced by the expectation of inflation since this provides an incentive to businessmen and other owners of wealth to convert at least some of their liquid assets into foreign currencies and securities belonging to countries that enjoy relatively more stable prices. Thirdly, inflation tends to redistribute income in a regressive way, and this is generally considered undesirable even though it may encourage enterprise by favouring business entrepreneurs at the expense of rentiers. Those sections of the community who lag behind in adjusting their money incomes to price rises suffer in relation to the others. Generally, it is the lower income groups, such as the pensioners and unskilled workers who are not protected by strong trade

unions, that suffer most from inflation. Finally, unless inflation is curbed in time, it may accelerate rapidly and end in the social and economic chaos of hyper-inflation.

A. CAUSES OF INFLATION

90. To combat inflation effectively and with the appropriate policy instruments it is essential first to make a proper diagnosis of an inflationary situation and to identify, as far as possible, the causes of the rise in the general price level. Until the great depression of the 1930s this was considered to be a rather simple matter: the dominant, if not the exclusive cause of rising prices was thought to be an increase in money supply: hence a slowing down in the rate of growth of the money supply was regarded as the proper instrument for curbing inflation. It is now generally recognized that inflation is a considerably more complex phenomenon than had previously been thought. It may be caused by a large number of factors operating under a variety of economic conditions; the appropriate policy instruments for curbing inflation should be determined primarily by the nature of the factors involved and by the conditions of the economy at the time.

91. As in the case of the price of a single good or service, the general price index of goods and services may rise because of an upward shift either in supply prices or in aggregate effective demand. It has become customary to refer to those general price rises that are generated from the supply side as "cost-push", or simply "cost", inflations, since a rise in supply prices is often brought about by increases in costs of production. Price rises induced by the growth of effective demand are usually designated as "demand-pull" or "demand" inflations. In some instances, supply and demand factors operate jointly to raise prices and there develops what may be called a mixed "cost-demand" inflation.

92. Before considering the respective roles of supply and demand factors in generating inflation, it is important to introduce some method for measuring the volume and the pressure of demand on productive capacity of the economy. Changes in demand for goods and services at any given price are reflected in changes in expenditure incurred on them at that price, just as changes in demand for labour are reflected in changes in the volume of employment at a given wage level. It is rather misleading to measure changes in demand for goods and services and for labour by reference to changes in prices and in money rates, respectively, as is sometimes done. Although movements of demand have some effect on prices and wage rates, they are not the sole, nor necessarily the most important, factor which influences prices and wages. As explained below, prices and wages may rise because of the operation of supply factors in periods of stagnant or even falling effective demand.

93. An important factor on the supply side that may initiate a cost-push inflation is a rise in prices of imported goods. For developing countries a part of the rise in domestic prices of imported goods can be attributed to a rising trend in c.i.f. quotations for imports in terms of foreign currencies in recent years. Considerably more pronounced, however, has been the rise in import prices which has taken place periodically in some countries as a result of such measures as devaluation, import controls and

increases in tariff rates, resulting from efforts to resolve serious balance-of-payments difficulties. As far as the initiation of cost-push inflation is concerned, it is immaterial whether such balance-of-payments difficulties were brought about by excess internal demand pressures or by factors entirely unrelated to internal demand, e.g. a fall in export prices, a bad harvest, etc. Other governmental actions which have at times raised prices from the supply side and have contributed to the initiation of a cost-push inflation are increases in indirect taxes and reduction of subsidies, especially when they have affected a wide range of essential consumer goods and services. Finally, a similar inflationary role has occasionally been played by a fall in the supply of internally produced goods and services, due to such factors as poor harvests and prolonged strikes, in so far as they have not been offset by an increase of imports.

94. The type of price rises mentioned in the preceding paragraph would generally be localized and of a once-for-all type,³⁸ but for the rise in money wage rates that they usually engender; wage claims are made and generally granted to compensate the workers for the price rises that have taken place. If the increase in wage rates exceeds the growth of labour productivity, labour costs per unit of output rise, thereby pushing up the supply prices of all goods and services affected by such wage rises. Even industries not affected by wage increases will be confronted with rising costs to the extent that the prices of some of their production inputs go up in the process. Inflation will continue if the new price rises provoke further wage increases in excess of the growth of labour productivity, and thus a "wage-price spiral" may be set in motion which will continue as long as increases in money wage rates and in labour productivity are not brought in line with each other. The role played by wages in transmitting inflation from goods and services initially affected by price rises to the rest of the economy and in perpetuating price increases through the mechanism of a wage-price spiral will vary from one country to another depending largely on the relative size of organized labour and on the bargaining power of the unions against employers.

95. It is important to emphasize that price rises that take place in the course of a cost inflation of this type, are entirely unrelated to the state of aggregate effective demand and to changes in it; they neither reflect nor generate an expansion in effective demand. Such inflation may start in periods of relatively high or low levels of aggregate effective demand and, as inflation progresses through a wage-price spiral, the volume of effective demand and hence of demand for labour may rise, remain unchanged or decline. The exact course followed by effective demand during a cost-push inflation will depend primarily on changes that take place in the volume of private investment and of public investment and consumption and in the behaviour of exports, and not on the rate of increase in prices. The rate at which prices rise, on the other hand, will be determined by the relationship of wage rises to labour productivity changes.

³⁸ Except for that part of price rises that can be attributed to the almost continuous increase in c.i.f. prices of imports.

96. A demand-pull inflation is caused by the pressure of internal demand on the supply of goods and services available for domestic expenditure and can take place in the absence of any upward pressure on prices from the supply side. Prices will tend to rise when and as long as a planned, or intended, increase in aggregate expenditure, at a given price level, exceeds the growth in the supply of goods and services that can be procured from a rise in national product and from a growth of imports at that price level. It follows that, with any given rate of expansion of aggregate effective demand, the more elastic is the supply of internally produced goods and services of a country and the greater is its ability to withstand a deterioration in its external account, the less is it likely to suffer from inflation.

97. Given the limit of deterioration in the external balance that a country can and is willing to tolerate, the exact level of effective demand and of economic activity at which inflationary demand pressures set in will depend primarily on the degree to which the structure of productive capacity is in harmony with the pattern of internal and foreign demands. Generally, in the developed countries, which enjoy a relatively more diversified structure of production, inflationary demand pressures appear at a relatively high level of activity, *i.e.* at full or near full level of employment. If the production structure is less diversified, as in the case of most developing countries, important bottle-necks in the form of shortages of skilled labour, equipment, raw materials, power or transport facilities may appear in some sectors when there are still widespread idle productive capacities in the rest of the economy. The emergence of such bottle-necks tends to stimulate imports and to push up prices in the sectors affected. It is primarily for this reason that the ceiling of economic activity, in relation to productive capacity, at which inflationary demand pressures set in is almost invariably lower in developing than developed countries.

98. A demand-pull inflation, if allowed to continue for a time, is likely to bring about additional upward pressures on prices from the supply side. Wage claims in excess of growth of labour productivity may be made to offset a rise in prices that has taken place, and, if granted, they will push up prices. A wage-price inflationary spiral may thus be set into motion in the course of a demand-pull inflation, producing what has been termed a mixed cost-demand inflation. Wage claims will be even higher and the cost-push inflationary pressures stronger, if the authorities resort to such measures as those mentioned in paragraph 93 above. Prices will continue to rise as long as labour and other costs per unit of output are increasing, even if the expansion of demand is completely halted. Thus, what started as a simple demand-pull inflation may first be transformed into a mixed cost-demand inflation and end as a simple cost-push inflation.

B. INDICATORS OF COST AND DEMAND INFLATION

99. It is not always easy to identify clearly all the factors involved in generating an inflation, and it is even more difficult to impute to individual factors their exact contribution to a given price increase. This is particularly

true in developing countries where often one cannot obtain adequate data for a thorough analysis of an inflationary situation. Despite these difficulties, in order to formulate a rational stabilization policy, it is essential to have at least some general indication of the major factors responsible for the inflationary pressures.

100. Some of the more important factors which may push up prices from the supply side were mentioned in paragraphs 93 and 94 above. These consisted of a rise in domestic prices of imported goods, an increase in indirect taxes and a reduction in producer or consumer subsidies, a fall in the supply of domestically produced goods due to such factors as poor harvests, strikes etc., and, perhaps the most prevalent and persistent factor of all, a rise in labour cost per unit of output resulting from increases in money wage rates in excess of the growth of labour productivity. It should be possible for most countries to get some idea of the role played by these factors, jointly and severally, in raising the general price level; the accuracy of the estimates made will of course depend on the quality of the data.

101. A reasonably clear view of the movements of aggregate demand can usually be obtained by examining the indicators mentioned below. Unless the economy is operating at full productive capacity, the expansion of aggregate demand should be accompanied invariably by a growth of production and very often by a rise in employment, in hours worked per week and in job vacancies. In addition, one can expect an increase in new orders received and in imports and a reduction of idle equipment capacity unless new productive capacity is being installed at a relatively rapid pace. When productive capacity is fully utilized, a rise in planned demand, if satisfied, will be reflected in a deterioration of the balance of payments on current account and, if not satisfied, will generally result in lengthening of order books and of delivery periods and in an upward movement of prices. Similar indicators covering individual sectors of the economy can be used to ascertain sectoral demand movements.

102. If in the course of an inflation the foregoing indicators point to a stagnant or a falling level of effective demand, the inflation must be of a cost-push type; an examination of the factors which operate on prices from the supply side should confirm this diagnosis. No such ready diagnosis of inflation can, however, be made if price rises are accompanied by an expansion of effective demand; the inflation could in that case be of a simple cost-push or demand-pull type, or, as often happens, of a mixed cost-demand type. If the productive capacity of the country, in the form of equipment and labour, is not fully utilized and no serious bottle-necks and inelasticities have been encountered in meeting the growing demand and production and if, at the same time, the country is able and willing to withstand any deterioration in the balance of payments that may be taking place, then it must be experiencing primarily a cost-push inflation; the role, if any, played by demand in pushing up prices in such cases cannot be very significant. If, on the other hand, one or both of the above two conditions do not hold, the inflation must be either of a simple demand-pull or of a mixed cost-demand type.

C. REMEDIES FOR INFLATION

103. In view of the large number of factors that may combine in a variety of ways to bring about an inflationary situation, it would be impossible in practice to devise a blueprint, in the form of a set of measures, which would be appropriate for curing all types of inflation. Every inflationary situation has certain special characteristics which have to be taken into account in devising appropriate policy instruments for dealing with it. The most that can be done within the context of this paper is to indicate briefly the considerations that may affect the choice of measures to deal with the major types of inflation discussed above.

104. It is clear that when the primary reasons for a rise in general price level emanate from the supply side, the broad strategy of a stabilization policy should aim at curbing the advance of the supply price of goods and services rather than at checking the growth of demand. This is particularly true when inflation takes place at a relatively low level of economic activity in relation to the productive capacity of a country. When, as is often the case, an inflationary process is maintained through the operation of a wage-price spiral, a rational stabilization policy would require the introduction of some form of incomes policy that would aim at preventing the rise in money wage rates from exceeding the growth of labour productivity. This may entail the introduction of subsidies and price controls to stabilize the cost of living and thus help to restrain wage claims.

105. Policies which aim at slowing down the pace of a wage-price inflationary spiral by curbing effective demand will tend to lower the rate of growth of production and employment without necessarily reducing the rate of wage and price increases significantly. Wage claims made in the course of this type of inflation are prompted by the desire of the unions to maintain the purchasing power of their members. The size of the claims made is therefore determined primarily by the rate at which prices have risen and are expected to rise and not by the state of demand for labour. In such conditions, a slackening in demand would generally have only a marginal effect in moderating union claims for wage increases. In any case, the effect of the slackening in demand may be largely offset by the adverse effect on the growth of labour productivity, thus leaving the rate of increase in labour cost per unit of output—the primary cause of inflation—largely unaffected.

106. A demand-pull inflation can, on the other hand, be halted by curbing the growth of effective demand through restrictive fiscal, monetary and other measures. The chief drawback of such a policy is its adverse effect on the growth of production unless the economy is operating at full capacity at the time the restrictive measures are applied; as mentioned above, this is rather unlikely to be the case for developing countries. These countries are thus often faced with the dilemma of either enduring demand inflation or submitting to lower rates of growth of production, and hence of savings, than they could otherwise have attained with their productive resources. Considering the importance of raising the level of domestic savings and investment and the strong social pressures for improving the standard of living in develop-

ing countries, it is not surprising that many of them have in the past been reluctant to curb the expansion of effective demand and of production in the interest of stabilizing prices. In the long run, the proper way of resolving the dilemma is a concentration of effort on the removal of the bottle-necks which are the primary cause of engendering inflationary demand pressures at relatively low levels of economic activity. But meanwhile the decision as to whether or not to adopt a stabilization policy based on curbing demand must be made by balancing the damage caused by the inflation against the loss of production entailed by such a policy. The decision will vary from one situation to another, depending on such factors as the seriousness of the inflation, the rate of growth of production, import capacity and the availability of idle productive capacity.

107. If the indicators mentioned above point to a mixed cost-demand inflation, it may be advisable to concentrate the effort at counteracting the forces that push up prices from the supply side while at the same time considering, along the lines suggested in the preceding paragraph, whether and to what extent the growth of demand and production should be restrained in order to reduce the pull of demand on prices.

108. The degree of success attained by a stabilization policy should be judged by reference to its long-run impact on the rates of inflation and on the growth of production. One can say that a policy has been successful if it has produced a deceleration of inflation without exercising an adverse effect on the trend of growth of production. This criterion of success should be applied over a number of years since, as shown below, the immediate impact of most anti-inflationary measures on prices and production may differ substantially from their medium- and long-run effects.

D. STABILIZATION POLICIES

109. As noted in Part one of this report, prices rose continuously, albeit at different rates, in almost all developed and developing countries throughout the 1960s; this occurred despite the stabilization efforts of the Governments. It would clearly be impossible within the scope of this paper to give an account of the stabilization policies followed by all developing countries. They have varied from one situation to another, depending largely on the special circumstances encountered and on the policy objectives of the Governments in each case. The most that can be done here is to examine the efficacy of the major types of stabilization measures taken in recent years by reference to the experience of some developing countries. Since, as noted earlier, inflation has in many cases been accompanied by balance-of-payments difficulties, most stabilization policies have also had the objective of restoring external balance.

110. The more important stabilization measures taken by developing countries in recent years can be categorized for convenience into supply-oriented and demand-oriented policies. The first category comprises measures affecting supply, such as wage and price controls, subsidies, price support schemes, import controls and multiple exchange rates; these generally entail substantial interference with the market mechanism. In the second category may be

placed those measures which are designed to stabilize the economy by curbing the growth of internal demand and by restoring the market mechanism. Most stabilization policies have included both types of measure but the relative emphasis placed on the one or the other has varied from one case to another.

111. Almost all developing countries and most developed countries rely to some extent on price controls and on consumer subsidies to stabilize prices. Consumer subsidies are often provided by running at a loss certain government enterprises, such as transport, power and communications, and by fixing a relatively favourable rate of exchange for the import of essential consumer goods under a multiple exchange rate system. In addition, many countries make use of production subsidies, such as price support schemes, to stimulate investment in certain key sectors of the economy. The main advantages of supply-oriented measures are that they diminish the pressure for wage claims and, hence, the risk of setting into motion wage-price spirals while at the same time easing the constraint of bottle-necks on the expansion of demand. Furthermore, they generally improve the pattern of income distribution and thereby contribute to social and political stability.

112. Among the many countries that have adopted this type of measure, Ceylon may be cited as an example of one that has relied heavily on such policies. In addition to maintaining an extensive welfare system in the form of free health services and education, it has run certain government enterprises, such as railways, power, post and telecommunications, at a loss. It has also subsidized food consumption heavily; until the end of 1966 each person over one year of age was allowed a ration of two measures of rice (4 lb) per week at a price of Rs 0.25 per measure, which was considerably lower than its cost of procurement. Moreover, to encourage domestic rice production, the Government subsidized production inputs and set a guaranteed procurement price which was generally well above the c.i.f. price of imported rice. In this way it succeeded, on the one hand, in stabilizing the cost of living and hence wages and, on the other, in stimulating the production of rice. Between 1960 and 1966, the cost-of-living index rose by less than 2 per cent per year on average and wages and salaries increased even more slowly; prices and wages rose somewhat faster after 1966 following a reduction in food subsidies in December 1966 and a devaluation of the rupee towards the end of 1967. On the production side, the country succeeded in almost doubling the output of rice in the course of the 1960s, by extending the area under cultivation and improving yields.

113. Supply-oriented measures have a number of important disadvantages. For example, consumer subsidy and price control schemes involve administrative costs and difficulties and raise problems of efficiency in government enterprises; price controls also tend to discourage investment in the sectors affected. But, from the point of view of economic development, the most important single drawback of consumer subsidies and large welfare outlays is that they sustain consumption at the expense of savings and investment and place a heavy burden on the balance of payments when they stimulate the consumption of internationally traded goods. This will have particularly

serious implications for the growth of production and employment, if the momentum of the growth in income is for some reason slowed down, as happened in the case of Ceylon following a deterioration in its terms of trade after 1955. Although no detailed national accounts data are available for the 1950s, the available economic indicators clearly suggest a reduction in the rate of savings and of growth in that country after 1955. During the period 1961–1965 the rate of growth of production declined further, real per capita income stagnated, and unemployment, especially among the young, increased rapidly. Despite a pronounced acceleration in investment and a marked improvement in the rate of growth of production, made possible by foreign economic assistance after 1965, the country continues to face a serious unemployment problem which it would find very difficult to solve satisfactorily without a continued inflow of foreign aid.

114. The problem of unemployment is not, of course, confined to those developing countries which, like Ceylon, have introduced extensive consumer subsidy and welfare policies; many other countries that have not adopted such policies face similar problems. What can be said, however, is that these policies, by stimulating consumption at the expense of investment, do tend to aggravate the problem of expanding employment opportunities. The final judgement on the success or failure of the policies in question must therefore depend on a comparison, in each case, of the gains in social welfare and in price, wage and political stability obtained from them with the loss that they entail by restraining savings and investment, thereby slowing down the rate of growth of production and employment.

115. Demand-oriented policies rely heavily on restrictive monetary and fiscal measures. Generally, under these policies, a ceiling is imposed on the total supply of money, and bank credit is restricted. Fiscal measures are taken in order to contain and, if possible, to reduce budget deficits by increasing revenues from direct and indirect taxation and by reducing public expenditure, including outlays on consumer subsidies. To restore the free operation of market forces, price controls are abolished and foreign exchange transactions freed, although import controls are often strengthened. The freeing of exchange transactions usually results in a devaluation of the currency.

116. A large number of developing countries have in recent years made some use of this category of measures as part of their over-all stabilization efforts. The immediate impact of these measures has almost invariably been an acceleration of inflation, often accompanied by a slackening in demand and production and by an improvement in the balance of payments. Prices rise more rapidly primarily because of increases in indirect taxes, reduction of consumer subsidies and a rise in import prices following devaluation; the slackening of demand results from a reduction in the volume of public and private investment expenditures and from a fall in real wages with its adverse effect on consumption; and improvement in the balance of payment is brought about by a fall in imports due to a slackening of internal demand and, in some cases, to a tightening of import controls. As shown below, this occurred, for example, in Argentina, in 1959 and 1962–1963, in Brazil during 1964–1965 and in Colombia in 1957

and 1963; similar developments followed the stabilization budget of Ghana in 1966, except with respect to inflation.

117. Countries making heavy use of demand-oriented measures have usually been conscious that an acceleration of inflation and a slackening of economic activity will take place in the initial phase of their stabilization programmes. Their strategy has been to stimulate demand and production after removing the basic causes of the inflationary pressures and restoring the external equilibrium; however, they have not always succeeded in attaining this objective. To moderate inflation, Governments must be able to prevent the emergence of a strong wage-price spiral following the initial rise in prices, and to stimulate economic activity they have to be willing to relax subsequently the restrictive monetary and fiscal measures initially introduced. More important, since a revival of activity generally increases the demand for imports, its continuation necessitates an expansion of import capacity through the growth of export receipts and/or through increased inflows of foreign capital; this necessity will remain until the country succeeds in reducing its dependence on imports.

118. It may be useful to illustrate these points by reference to the stabilization programmes of some developing countries. In Argentina, for example, the stabilization programme of 1959 resulted in an acceleration of inflation and a fall in production and imports in that year. This was followed in 1960–1961 by a recovery of production, a deceleration of inflation and a rise in imports financed largely by an inflow of foreign capital of which direct investment and suppliers' credits formed a substantial part. Following the completion of the major foreign investment projects and the partial settlement of suppliers' credit, the country found itself in serious balance-of-payments difficulties. To resolve these difficulties, it devalued the peso and adopted restrictive monetary and fiscal measures similar to those taken in its first stabilization programme during 1959. These resulted in an acceleration of inflation, due to a wage-price-devaluation spiral, and in a fall in the level of production in 1962–1963; most of the stabilization measures were abandoned in the course of 1964.

119. The stabilization programme of Argentina in 1967 differed in three important respects from the previous efforts: a stronger emphasis was placed on controlling wages; credit to the private sector was not restricted; and there was an increase in public investment financed with the additional revenue generated through fiscal reforms. The programme succeeded in slowing down the rate of increase in the cost-of-living index from an annual rate of about 30 per cent in 1966–1967 to 16 per cent in 1968 and to 8 per cent in 1969; at the same time, the rate of growth of GDP rose from 2 per cent in 1967 to just under 5 per cent in 1968 and to about 6.5 per cent in 1969. Following the disturbances of May 1969, the incomes policy was relaxed and higher wage awards were permitted in the second half of 1969 and in the course of 1970–1971. This, together with a steep rise in the price of beef due to a reduction of supplies, was principally responsible

for a resumption of inflation during 1970–1971. Prices rose by 14 per cent in 1970, compared with 8 per cent in the preceding year, and have since been rising faster.

120. A somewhat different type of example is provided by the stabilization measures of Ghana, introduced early in 1966. Here the Government has succeeded in checking inflation, but had not until recently been able to bring about a significant improvement in the rate of growth of production. The rate of increase in the consumer price index fell from 30 per cent in 1965 to 13 per cent in 1966 following widespread reductions in import duties and sales taxes and a severe cutback in public investment; during 1969–1970, prices have been rising at about 7–8 per cent per year. The deceleration of inflation has, however, been accompanied by a fall in the ratios of taxation, savings and investment to GDP and by a stagnation of production. The volume of gross domestic product, which had been rising very sluggishly in 1964–1965, remained unchanged in 1966, rose by less than 2 per cent per annum in 1967–1968 and by just over 3 per cent in 1969. With a rapid growth of population, estimated at 2.5–3 per cent per year, the slow rate of expansion of activity in recent years has brought about a noticeable rise in the level of unemployment.

121. By contrast, the Governments of Brazil and Colombia have in recent years succeeded in containing inflation without retarding the growth of production. The stabilization programmes of the two countries have relied heavily on both supply- and demand-oriented measures. In Brazil, inflation accelerated at first; the cost-of-living index rose by 90 per cent in 1964, compared with 70 per cent in 1963. Subsequently, the rate of increase in prices slowed down; it had fallen to 30 per cent by 1967 and to just over 20 per cent per year during 1968–1970. Similarly, Colombia succeeded in reducing the rate of increase of the consumer price index from 17 per cent in 1966 to 9 per cent in 1967 and to an annual rate of about 7 per cent during 1968–1970. The ability of the two Governments to restrict wage increases and to regulate price changes played a key role in checking inflation. In both countries the deceleration of inflation was accompanied by a rapid growth of demand and production in the years 1968–1970, amounting annually to about 9 per cent in Brazil and to 6–7 per cent in Colombia. The expansion of demand was stimulated by a steep rise in public investment and by an easing of credit conditions after the initial stage of the stabilization programmes. Important reforms in the fiscal systems of the two countries resulted in a substantial increase in public revenues, which were used to finance growing investment expenditures. The rise in imports generated by the rapid expansion of production was financed partly by a growing inflow of foreign capital and partly by a rise in export receipts. The latter resulted from a recovery in coffee prices after 1967 and a steep rise in non-traditional exports, which were stimulated in both countries by fiscal incentives and by a crawling-peg exchange system. It is worth noting, however, that even the relatively high rates of growth of production in the two countries have not as yet significantly mitigated their problem of unemployment.

EXTERNAL DEVELOPMENT FINANCE

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report, which is a revised version of document TD/B/C.3/97 and Corr.1, was circulated to the Conference as document TD/118/Supp.2, dated 4 January 1972, and TD/118/Supp.2/Corr.1, dated 11 April 1972. It will also be issued separately as a United Nations publication.

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Summary

1. Total net flows of financial resources to developing countries from developed countries and multilateral institutions rose from \$7 billion in 1960 to \$14 billion in 1970, reflecting an average annual rate of growth of 7.2 per cent. Measured in constant prices, these flows increased at an average rate of 5.4 per cent over the period 1960-1970.¹

2. The composition of net flows underwent noteworthy changes during the 1960s, with private flows and flows from the multilateral institutions substantially increasing their share in the total flows to developing countries. Net private flows increased at an average annual rate of 8.4 per cent, resulting in an increase in their share in total flows from 38.4 per cent in 1960 to 43.3 per cent in 1970. Private export credits, which accounted for one-third of total net private flows in 1970, increased rapidly at an average annual rate of 18.1 per cent.

3. Net flows from multilateral institutions also increased rapidly at an average annual rate of 17.1 per cent during the period 1960-1970. In 1970 these flows amounted to \$1.4 billion and accounted for 10 per cent of total net flows to developing countries.

4. The ratio of total net flows from member countries of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) to their combined gross national product declined from 0.73 per cent in 1968 to 0.70 per cent in 1969 and rose again to 0.71 per cent in 1970. In 1970, net flows from developed market economy countries to developing countries and multilateral institutions amounted to \$14.2 billion.

5. Total net official development assistance accounted for 47.1 per cent of net flows from developed market economy countries. The ratio of net official development assistance from DAC member countries to their combined gross national product fell from 0.35 per cent in 1969 to 0.34 per cent in 1970. Most developed countries have not yet accepted the official development assistance target set out in the International Development Strategy, and only three countries are within short reach of that target.

6. Commitments of the socialist countries increased from \$758 million in 1968 to \$1.7 billion in 1970. No reliable information is available about disbursements resulting from these commitments.

7. New commitments relating to official development assistance loans from DAC member countries show increases in average maturity and grace periods and a decline of the average interest rate between the years 1969 and 1970. However, the proportion of grants in total official development assistance declined from 65 per cent in 1969 to 63 per cent in 1970. Ten DAC member countries met in both 1969 and in 1970 at least one of the alternative norms for terms set out in the 1969 DAC Supplementary Recommendation on Financial Terms and Conditions.² In addition, one DAC member country, while not meeting the norms in 1969 did so in 1970. However, although it has yet to be attained by certain countries, the DAC terms target is not in itself a means of bringing about any significant over-all easing in the terms of assistance.

8. Terms of lending of multilateral institutions continued to harden, reflecting the higher costs that these institutions have incurred in borrowing from international capital markets. The ordinary loans of the multilateral

¹ Data on financial flows during the period 1960-1970 are provided in the statistical annex to this document (tables A-1 to A-9).

² See OECD, *Development Assistance, 1969 Review* (Paris, 1969) annex III, p. 247.

institutions are currently carrying interest charges of between 7¼ and 8 per cent.

9. Comprehensive figures regarding the composition and terms of financial flows from the socialist countries are not available. Incomplete data from various sources indicate that a large proportion of credits from socialist countries carry maturities of 10 years and interest rates of 3 per cent. Several interest-free government loans have also been made with maturities varying from 16 to 30 years. Many of these loans are repayable either in the form of commodity exports from the debtor countries or in their national currencies.

10. A number of recipient countries would benefit if the share of programme aid in the total inflow of assistance were substantially increased, notably from the multilateral agencies which lag considerably behind bilateral assistance programmes in this respect.

11. Some DAC member countries have taken steps to reduce the extent of aid tying. In addition, DAC member countries have agreed on the desirability of broad measures to untie aid, and a press release on the June 1971 ministerial meeting of the Council of OECD reported that "substantial progress had been made in drawing up a draft agreement on aid untying to be proposed to the governments who would be invited to indicate whether they wish to participate".³ In the context of a series of measures to deal with economic problems, taken in August 1971, the United States decided to postpone participation in such an arrangement. However, the DAC Chairman had expressed the view that "as soon as current international economic negotiations have been brought to a successful conclusion, work will be resumed in DAC to resolve the remaining obstacles to a wide and generous agreement".⁴

12. Agreement on multilateral untying of development assistance would improve the conditions of assistance significantly. The effectiveness of such an agree-

ment would depend on provisions that would ensure adherence to the principle of international tendering and that would discourage indirect or informal tying. The developing countries would stand to benefit further if the agreement embodied some flexibility in procurement from sources of supply in the recipient country and an adequate margin of preference for local suppliers when participating in an open international tender.

13. The distribution of net official bilateral and multilateral flows among the developing regions changed considerably during the second half of the 1960s. A number of low-income developing countries experienced a fall in their share, and in certain instances net flows to these countries declined between the periods 1964-1965 and 1969-1970.

Chapter I

Total net flow of financial resources to developing countries

14. As may be seen from table 1, total net flows of financial resources to developing countries in Africa, Asia and Latin America rose from \$12 billion in 1968 to \$12.6 billion in 1969 and to \$14 billion in 1970, representing an increase of 4.8 per cent between the years 1968 and 1969 and of 11.3 per cent between the years 1969 and 1970.

15. The rise in total flows from 1968 to 1970 primarily reflected substantial increases in private flows from developed market economies, which rose from \$5.5 billion in 1968 to \$6.4 billion in 1970, and in flows from multilateral institutions, which rose from nearly \$789 million in 1968 to \$1.4 billion in 1970 (see tables 1 and 2). Taken together, these two categories accounted for four-fifths of the increase in total flows. Bilateral grants and loans at concessional terms rose modestly, from \$5.3 billion in 1969 to \$5.5 billion in 1970.⁵

⁵ Figures for 1968 on the basis of the United Nations definitions of developing countries are not available for these items. However, OECD figures for bilateral grants and loans at concessional terms which are inclusive of disbursements to European recipient countries showed no significant change between 1968 and 1969.

TABLE 1

Total net flow of financial resources to developing countries in Africa, Asia and Latin America, 1961-1970 (Net disbursements)

Year	Total ^a		From developed market economy countries		From multilateral institutions	
	\$U.S. million	Percentage change ^b	\$U.S. million	Percentage change ^b	\$U.S. million	Percentage change ^b
1968	11 980	10.6	10 941	13.9	789	-21.3
1969	12 557	4.8	11 246	2.8	1 081	37.0
1970	13 979	11.3	12 326	9.6	1 403	29.8
1961-1965 (annual average)	8 707	7.9	7 809	6.6	549	29.1
1966-1970 (annual average)	11 905	6.6	10 626	6.6	1 019	14.0

Sources: UNCTAD secretariat, based on OECD, 1971 Review . . . , and data supplied by the OECD secretariat directly and the United Nations Department of Economic and Social Affairs.

^a Includes rough estimates of net disbursements from socialist countries to developing countries, exclusive of Cuba. These estimates are derived from the OECD Press release (PRESS/A(71)22), of 28 June 1971, and should be taken only as reflecting a broad order of magnitude. See also paragraphs 29 and 30 of the present report.

^b Percentage change from the preceding year, or average annual percentage change during the period specified.

³ OECD, Press release (PRESS/A(71)18), of 8 June 1971.

⁴ See OECD, *Development Assistance, 1971 Review* (Paris, 1971) p. 12.

TABLE 2

Net flows of financial resources ^a from developed market economy countries ^b to multilateral institutions and to developing countries in Africa, Asia and Latin America, 1969-1970

(Net disbursements in \$U.S. million)

	1969		1970	
	Amount	Per cent of total	Amount	Per cent of total
I. Official development assistance	6 413	50.1	6 702	47.1
of which:				
1. Bilateral grants and grant-like flows . .	3 252	25.4	3 271	23.0
2. Bilateral loans at concessional terms . .	2 095	16.4	2 282	16.0
3. Contributions to multilateral institutions ^c	1 065	8.3	1 149	8.1
II. Other official flows	584	4.6	1 120	7.9
of which:				
1. Bilateral	504	3.9	714	5.0
2. Multilateral ^d	80	0.6	406	2.9
Total official flows (I+II)	6 997	54.6	7 822	55.0
III. Private flows	5 814	45.4	6 402	45.0
of which:				
1. Direct investment	2 398	18.7	3 245	22.8
2. Bilateral portfolio	1 277	10.0	809	5.7
3. Multilateral portfolio	419	3.3	343	2.4
4. Export credits ^e	1 720	13.4	2 005	14.1
TOTAL (I+II+III)	12 811	100.0	14 224	100.0

Sources: See table 1.

^a The net flows of financial resources are as defined in Conference decision 27(II), footnote to paragraph 2.

^b DAC member countries and rough estimates for flows from Finland, Iceland, Luxembourg, New Zealand and Republic of South Africa.

^c Including grants and other contributions, capital subscriptions, and participations relating to the following organizations: African Development Bank (ADB), Asian Development Bank (AsDB), European Development Fund (EDF), European Investment Bank (EIB), International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC), Inter-American Development Bank (IDB), United Nations Development Programme (UNDP), United Nations Fund for the Congo (UNFC), United Nations High Commissioner for Refugees (UNHCR), United Nations Children's Fund (UNICEF), United Nations Korean Reconstruction Agency (UNKRA), United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNWRA), United Nations Temporary Executive Authority (West Bank), and World Food Programme (WFP). Contributions to the regular budgets of the United Nations and the specialized agencies are not included.

^d The net acquisition by governments and central monetary institutions of securities issued by multilateral development banks (enumerated in note c) at market terms; plus repayments and minus disbursements on account of loans by multilateral development banks to developed market economy countries. (Rediscounting of trade instruments is not considered as an official flow.)

^e Measured by some countries as change in outstanding amounts guaranteed, by others as change in outstanding amounts due on disbursed credits. Interest is included in the sums recorded as outstanding, so that the net flow tends to be overstated if gross new guarantees are rising, and vice versa.

A. FINANCIAL FLOWS FROM DAC MEMBER COUNTRIES

16. In its decision 27 (II), paragraph 2, the Conference at its second session recommended "that each economically advanced country should endeavour to provide annually to developing countries financial resource transfers of a minimum net amount of 1 per cent of its gross national product (GNP) at market prices in terms of actual disbursements".⁶ A broadly similar recommendation was made in General Assembly resolution 2415

(XXIII) of 17 December 1968. The International Development Strategy adopted by the General Assembly reaffirmed the above recommendation (General Assembly resolution 2626 (XXV), paragraph 42) and went on to state that:

Those developed countries which have already met this target will endeavour to ensure that their net resource transfers are maintained and envisage, if possible, an increase in them. Those developed countries which are unable to achieve this target by 1972 will endeavour to attain it not later than 1975.

17. The ratio of total net flows from all DAC member countries to the combined GNP of these countries declined from 0.73 per cent in 1968 to 0.70 per cent in 1969, and then rose to 0.71 per cent in 1970 (see table 3). During the second half of the decade the ratio was significantly lower than during the first half, primarily reflecting declines in

⁶ See *Proceedings of the United Nations Conference on Trade and Development, Second Session*, vol. 1 and Corr.1 and 3 and Add.1-2, *Report and Annexes* (United Nations publication, Sales No. E.68.II.D.14), p. 39.

TABLE 3
Performance under the 1 per cent target ^a — DAC member countries, 1961–1970
(Percentage of GNP)

Country	Annual average 1961–1965	Annual average 1966–1970	1968	1969	1970
Australia	0.51	0.87	0.88	0.82	1.14
Austria	0.19	0.46	0.52	0.55	0.48
Belgium	1.09	0.99	1.07	1.03	1.13
Canada	0.30	0.52	0.49	0.50	0.69
Denmark	0.16	0.55	0.74	0.87	0.63
Federal Republic of Germany	0.67	0.82	1.11	1.00	0.62
France	1.64	1.19	1.27	1.19	1.22
Italy	0.51	0.70	0.64	0.99	0.80
Japan	0.42	0.69	0.64	0.73	0.90
Netherlands	1.05	1.14	1.01	1.25	1.43
Norway	0.23	0.51	0.67	0.80	0.62
Portugal	1.40	1.11	0.78	1.61	1.04
Sweden	0.27	0.52	0.46	0.72	0.58
Switzerland	1.31	0.71	1.10	0.55	0.54
United Kingdom	0.92	0.82	0.68	0.97	0.91
United States	0.72	0.58	0.62	0.49	0.54
DAC TOTAL	0.75	0.70	0.73	0.70	0.71

Sources: Based on IMF, *International Financial Statistics*, various issues; United Nations, *Monthly Bulletin of Statistics*, October 1968, and *Yearbook of National Accounts Statistics*, various issues; and sources cited in table 1.

^a Net flow of financial resources to developing countries in Africa, Asia and Latin America, and to multilateral institutions, as a percentage of GNP at market prices.

the ratios relating to three of the major donors—France, the United Kingdom⁷ and the United States. These declines were partially offset by a rapid growth in assistance from other member countries, notably Japan and the Federal Republic of Germany, which ranked in 1970 as the third and fourth major contributors, respectively. Other noteworthy increases were recorded in the cases of Australia, Austria, Canada, Italy, the Netherlands, Norway and Sweden.

18. The performance of individual DAC member countries in 1968–1970 was varied. Australia surpassed the target ratio of 1 per cent for the first time in 1970. The Federal Republic of Germany, having surpassed the target ratio in 1968 and 1969, fell considerably below it in 1970, a reflection primarily of a decline in private portfolio investments. Switzerland had surpassed the target ratio in 1968, but fell below it in both 1969 and 1970. Belgium, France and the Netherlands surpassed the target in all three years, while Austria, Canada, Denmark, Italy, Japan, Norway, Sweden, United Kingdom and United States failed to reach the target in any of the three years; however, Canada and Japan showed a decided upward trend, while Sweden and the United Kingdom showed some improvement over the period, although both countries recorded a decline in 1970. While in 1961 six DAC member countries had achieved the 1 per cent target (Belgium, France, Netherlands, Portugal, Switzerland and United Kingdom), in 1970 only five countries attained the target (Australia, Belgium, France, Netherlands and Portugal).

⁷ During 1969–1970, the United Kingdom ratio recovered significantly.

1. Official development assistance

19. The International Development Strategy, in paragraph 43, urged that:

In recognition of the special importance of the role which can be fulfilled only by official development assistance, a major part of financial resource transfers to the developing countries should be provided in the form of official development assistance. Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts to reach a minimum net amount of 0.7 per cent of its gross national product at market prices by the middle of the Decade.

20. As may be seen in table 4, only Australia, France and the Netherlands are within short reach of the target. For the other countries the early attainment of the target would call for a vigorous acceleration of the disbursements of official development assistance. For DAC member countries as a whole, official development assistance as a percentage of GNP declined from 0.35 per cent in 1969 to 0.34 per cent in 1970. The ratio decreased in ten of the DAC member countries, including all of the larger donors, and rose in the six remaining countries.

21. A number of DAC member countries have agreed without reservation to meet the official development assistance target in accordance with the International Development Strategy. These countries include Belgium, Netherlands, Norway, Portugal and Sweden. France, while accepting the target in principle, has declared its intention to maintain the ratio at a level between 0.6 and 0.7 per cent, while Canada and the Federal Republic of Germany have accepted the 0.7 per cent target in principle but have not specified a date for achievement. In Denmark, substantial increases in disbursements of official assistance are envisaged under the medium-term assistance pro-

TABLE 4

Performance under the official development assistance target ratio —
DAC member countries, 1969–1970

(Percentage of GNP)

Country	1969	1970
Australia	0.56	0.59
Austria	0.11	0.13
Belgium	0.50	0.47
Canada	0.34	0.43
Denmark	0.39	0.38
Federal Republic of Germany	0.33	0.30
France	0.66	0.63
Italy	0.10	0.17
Japan	0.26	0.23
Netherlands	0.49	0.62
Norway	0.30	0.32
Portugal	1.04	0.46
Sweden	0.43	0.37
Switzerland	0.16	0.14
United Kingdom	0.38	0.34
United States	0.32	0.31
DAC TOTAL	0.35	0.34

Sources: See table 1.

gramme. Recent development programmes in Switzerland and the United Kingdom indicate an intention to raise the ratio of official development assistance to GNP, possibly, to 0.4 per cent by 1975. In Austria and Italy, reviews of development assistance policies are under way. In spite of the rapid increase in the official development assistance of Japan, the ratio was maintained at a relatively low level during the past decade and in 1970 it amounted to 0.23 per cent. Recently, the Government of Japan expressed the intention of raising the ratio to at least the average level of DAC member countries as speedily as possible.⁸

22. Even if the above countries were to step up their official development assistance substantially the prospects for total flows to developing countries would remain in doubt in view of uncertainties regarding assistance from the United States, which accounted for 45 per cent of official development assistance flows from DAC member countries in 1970. The ratio of United States official development assistance to its GNP declined steadily over the decade of the 1960s and amounted to 0.31 per cent in 1970. On 15 August 1971, in the context of a series of measures to deal with both domestic and external economic problems, the President of the United States announced a 10 per cent cut in foreign assistance expenditures.

23. On the basis of the above indications, the Chairman of DAC has drawn the following conclusions regarding the prospects for official development assistance:

There is no evidence just at present of the reversal of priorities required in several major countries to bring about the increases in disbursements that would be needed to meet the target by 1975. Thus, taken as a whole, the probability is that the percentage of GNP

devoted to ODA (Official development assistance) will not change much in the next few years, though a slow upward movement is possible.⁹

2. Private flows

24. While private flows as a whole rose sharply during the period 1968–1970, the components of these flows show disparate movements. Large increases occurred in the case of export credits and direct investment outlays. Bilateral portfolio investments rose significantly in 1969, but fell abruptly in 1970 to a level below that of 1968. Net sales of multilateral agencies' debt instruments to the private sector fell sharply in 1969 and more moderately in 1970, after attaining a record level in 1968. As regards the principal donor countries, total private flows from the Federal Republic of Germany rose sharply in 1969, and then fell equally sharply in 1970. Total private flows from France and the United States declined in 1969, but rose again in 1970 to about the same level as in 1968. Flows from the United Kingdom rose sharply in 1969 and increased further in 1970.

25. For the first time, detailed statistics have been compiled by the DAC secretariat covering grants made by private voluntary agencies to developing countries.¹⁰ In 1970, a total of \$840.2 million is estimated to have been contributed through these channels. These funds originate from a multitude of donor organizations and have varied aims and objectives. They are not included in table 2.

B. FLOWS FROM MULTILATERAL INSTITUTIONS

26. Net flows from multilateral institutions rose from \$789 million in 1968 to \$1,403 million in 1970 accounting for 10 per cent of total net flows to developing countries (see table 5). Net disbursements from IBRD doubled between the years 1968 and 1970 but this increase was partially offset by a fall in net disbursements from IDA, reflecting primarily a drop in disbursements to India; the combined net outlays of the two organizations rose from \$360 million in 1968 to \$498 million in 1970. The lending operations of ADB and AsDB are of relatively recent origin and disbursements between 1968 and 1970 were more than offset by subscriptions of developing countries to these institutions. The marked increase in net disbursements from IDB between the years 1968 and 1970 also reflects, in part, the concentration in 1968 and 1969 of contributions and subscriptions of developing member countries to the Bank, partly in national currencies.

27. The rapid increase in net disbursements by multilateral institutions was made possible, in part, by rising contributions of developed market economy countries to these institutions. Thus the share of contributions to multilateral institutions in total official development assistance rose from 11 per cent in 1961–1962 to 17 per

⁹ See OECD, 1971 Review, ..., p. 50.

⁸ See summary records of the Committee on Invisibles and Financing related to Trade, fifth session, 98th meeting (TD/B/C.3/SR.98).

¹⁰ These grants are defined as "the expenditures on development assistance and relief undertaken by private non-profit-making agencies, including co-operative societies and trade unions (but not business firms)" (OECD, 1971 Review, ..., p. 38).

TABLE 5

Net flow of resources from multilateral institutions ^a to developing countries of Africa, Asia and Latin America, 1961-1970
(Net disbursements in \$U.S. million)

Agency	Annual average 1961-1965	Annual average 1966-1970	1968	1969	1970
ADB ^b	-16	-7	-10	-8	-2
AsDB ^c	—	-26	-29	-24	-15
EDF	66	119	110	117	145
EIB ^c	—	7	5	11	10
IBRD	241	228	171	215	347
IDA	67	236	189	234	151
IFC	9	32	20	47	54
IDB ^d	3	119	19	160	300
United Nations agencies	169	312	314	328	413
TOTAL	539	1 020	789	1 081	1 403

Source: UNCTAD secretariat, based on reports of the multilateral institutions.

^a Grants and loans less subscriptions and contributions (regardless of whether made in the currency of the recipient country or in other currencies) and participation and repayments where relevant. The data are also net of changes in holdings in developing countries of the funded debt of IBRD and IDB. Negative figures indicate subscriptions, contributions and participations in excess of disbursements, net of repayments.

^b First year of transactions, 1964.

^c First year of transactions, 1966.

^d Social Progress Trust Fund disbursements are reported as bilateral assistance of the United States.

cent in 1969-1970. This trend is in keeping with the recommendation of the Pearson Commission that:

Aid-providers increase grants and capital subscriptions for multilateral development aid programs to a minimum of 20 per cent of the total flow of official development assistance by 1975.¹¹

28. It should be noted, however, that the rapidity of the approach to the above target ratio was associated with a relatively slow growth of total official development assistance. The above recommendation of the Pearson Commission should be taken in conjunction with another of the Commission's recommendations to the effect that official development assistance should reach a level equivalent to 0.7 per cent of GNP of developed countries by 1975.¹² This would imply that by 1975 contributions to multilateral agencies should be equivalent to 0.14 per cent of GNP of developed countries, and bilateral assistance to 0.56 per cent of GNP. In 1969-1970 contributions to multilateral agencies amounted to 0.06 per cent of GNP of developed market economy countries and bilateral official development assistance to 0.28 per cent of their GNP.

C. DEVELOPMENT ASSISTANCE FROM THE SOCIALIST COUNTRIES OF EASTERN EUROPE AND ASIA

29. Official statistics covering financial disbursements by socialist countries of eastern Europe and Asia are

¹¹ See *Partners in Development: Report of the Commission on International Development* (Pall Mall Press, London, 1969), p. 215.

¹² *Ibid.*, p. 148.

TABLE 6

Commitments of bilateral economic assistance to developing countries from the socialist countries of eastern Europe and Asia, 1961-1970 ^a
(\$U.S. million)

Country	Annual average 1961-1965	Annual average 1966-1970	1968	1969	1970
Bulgaria	8	40	35	20	82
China, People's Republic of	127	149	42	—	695
Czechoslovakia	66	112	200	37	45
German Democratic Republic	50	100	8	134	125
Hungary	35	47	40	21	79
Poland	60	28	20	30	25
Romania	35	40	45	132	10
USSR	334	514	368	402	633
TOTAL	714	1 030	758	776	1 694

Sources: United Nations, *World Economic Survey, 1969-1970* (United Nations publication, Sales No. E.71.II.C.1), pp. 169-170, and additional information supplied by the Centre for Development Planning, Projections and Policies of the United Nations Secretariat.

^a Excluding commitments to Cuba.

not available.¹³ Estimates of commitments are shown in table 6.

30. While 1969 commitments showed no significant change from 1968, commitments more than doubled from 1969 to 1970. This increase reflected an exceptionally high level of lending activity by the People's Republic of China, including a loan of \$405 million to Zambia and the United Republic of Tanzania for the construction of a 1,066 mile railway line between Dar es Salaam and Lusaka. Significant increases in commitments during 1969-1970 were also recorded by Bulgaria, the German Democratic Republic, Hungary and the Soviet Union. Commitments by the latter in 1970 rose sharply from the levels recorded in 1968 and 1969. Czechoslovakia, on the other hand, showed declines in commitments.

Chapter II

The terms of financial flows

A. DAC MEMBER COUNTRIES

31. Table 7 shows the terms of development assistance commitments for the years 1969 and 1970. In 1970, the average maturity and the average grace period of new loan commitments lengthened, while the average interest rate declined, with the consequence that on all three counts there was a slight improvement in the terms of lending. However, the proportion of grants in total official development assistance declined from 65 per cent in 1969 to 63 per cent in 1970.

¹³ The OECD has estimated these disbursements to be \$130 million in 1960, \$230 million in 1967, and \$250 million in 1968. (See OECD, Press release (PRESS/A(71)22), of 28 June 1971). For the same three years, the United Nations Department of Economic and Social Affairs has estimated such disbursements to be \$550 million, \$516 million, and \$588 million, respectively; see *The External Financing of Economic Development, 1970* (United Nations publication, Sales No. E.70.II.A.3).

TABLE 7
Average terms of official development assistance commitments—
DAC member countries, 1969–1970

Country	Grants as percentage of total official development assistance		Loan terms					
	1969	1970	Maturity (years)		Interest rate (per cent)		Grace period (years)	
			1969	1970	1969	1970	1969	1970
Australia	100	91	— ^a	14.0	— ^a	6.4	— ^a	4.0
Austria	69	41	14.6	13.9	4.4	5.1	4.2	4.2
Belgium	92	92	28.2	29.6	2.7	2.3	7.9	9.2
Canada	60	65	48.5	48.5	0.3	0.2	9.8	9.8
Denmark	76	92	25.0	25.0	0.0	0.0	7.0	7.0
Federal Republic of Germany	51	54	26.0	27.5	3.2	2.9	7.6	8.5
France	74	73	17.0	16.2	3.7	3.7	1.9	2.3
Italy	27	54	10.2	13.1	5.3	4.9	1.8	5.2
Japan	42	39	19.5	21.4	3.7	3.7	6.1	6.7
Netherlands	69	64	28.6	29.0	3.1	2.9	8.1	7.8
Norway	91	99	36.0	23.0	1.7	2.4	7.9	9.0
Portugal	30	27	30.1	29.0	2.3	4.0	8.0	8.0
Sweden	85	82	47.2	35.4	0.9	1.5	10.0	10.0
Switzerland	76	82	33.0	36.0	2.3	2.0	8.0	8.0
United Kingdom	48	50	24.1	24.6	1.2	1.7	5.6	6.2
United States	70	64	37.1	37.4	3.0	2.6	8.7	8.7
DAC TOTAL	65	63	28.1	29.9	2.9	2.8	6.7	7.4

Source: OECD, 1971 Review, . . . , pp. 62–63.

^a There were no Australian loan commitments in 1969.

32. In the 1969 Supplementary Recommendation on Financial Terms and Conditions, the DAC member countries set out norms for the terms of official development assistance (ODA). According to these recommendations, a member country is in compliance with the terms if:

(a) grants represent 70 per cent or more of its ODA commitments; or

(b) it provides at least 85 per cent of its ODA so that each transaction has a minimum grant element of 61 per cent; or

(c) eighty-five per cent of its ODA commitments contain an average grant element of at least 85 per cent.

33. Countries whose volume at qualifying terms is significantly below the DAC average as a percentage of GNP are not considered as having met the terms target.

34. The position of DAC member countries with respect to the terms recommendation is set forth in table 8. Australia, Belgium, Denmark, Norway and Sweden met all three of the criteria both in 1969 and 1970, while Canada and the United Kingdom met the norms on the basis of alternatives (b) and (c), and France on the basis of alternatives (a) and (c), in both years. While the Federal Republic of Germany failed to meet any alternative in 1969, it complied with alternative (c) in 1970. The Netherlands qualified through route (c) in 1969 and through routes (b) and (c) in 1970, and the United States complied with all three alternative norms in 1969 and with alternatives (b) and (c) in 1970. Italy, Japan and Portugal failed to meet any of the alternative criteria in either year.

35. Notwithstanding their performance in other respects, Austria and Switzerland did not satisfy the require-

ments of the target because the volume of their assistance at qualifying terms was significantly below the DAC average as a percentage of GNP both in 1969 and in 1970.

36. It will be noted that in 1969 the DAC member countries as a group more than met the terms target through alternative (c) and were very close to meeting the requirements of alternative (b). In 1970 they met the target through alternatives (b) and (c). Consequently, while the DAC terms target has yet to be attained by certain countries, it is not a means of bringing about any significant over-all easing in the terms of assistance.¹⁴

B. MULTILATERAL INSTITUTIONS

37. During recent years there has been a continuing increase in the cost of borrowing from multilateral lending institutions. The rate of interest charged by IBRD was raised from 7 to 7½ per cent early in 1971, and the lending rates of the other multilateral institutions currently stand between 7½ and 8 per cent. These increases have been necessitated by the higher costs the multilateral institutions have incurred in borrowing from the capital markets of developed market economy countries. The IBRD, for example, has reported that the average cost of its borrowings rose from 6.17 per cent in fiscal year 1968 to 6.46 per cent in fiscal year 1969 and to 7.69 per cent in fiscal year 1970. In August 1971 it was announced that the IBRD would issue 25-year bonds in the amount of \$175 million at an interest rate of 8½ per cent.

¹⁴ For an evaluation of the target, see "The terms of financial flows, including an analysis of the 1969 DAC Supplement: report by the UNCTAD secretariat" (TD/B/C.3/72 and Corr.1 and 2).

TABLE 8

1969 Supplementary Recommendation on the terms of official development assistance commitments:
standing of DAC members in 1969-1970

Country	Grants as percentage of total (norm: 70 per cent)		Grants and loans with a concessional element of at least 61 per cent as a percentage of total (norm: 85 per cent)		Per cent of programmes averaging a concessional element of 85 per cent (norm: 85 per cent)	
	1969	1970	1969	1970	1969	1970
Australia	100	91	100	91	100	100
Austria	69	41	69	41	91	64
Belgium	92	92	94	98	100	100
Canada	60	65	97	98	100	98
Denmark	76	92	100	100	100	100
Federal Republic of Germany	51	54	71	84	81	86
France	74	73	75	73	97	93
Italy	27	54	27	54	36	76
Japan	42	39	54	56	68	74
Netherlands	69	64	82	89	100	91
Norway	91	99	96	100	100	100
Portugal	30	27	60	41	71	67
Sweden	85	82	100	100	100	99
Switzerland	76	82	88	93	100	100
United Kingdom	48	50	91	88	96	90
United States	70	64	95	92	100	92
DAC TOTAL	65	63	84	85	99	92

Source: OECD, 1971 Review, . . . , pp. 62 and 64, and OECD, Press release (PRESS/A(71)22), of 28 June 1971, p. 31.

38. Multilateral lending institutions have some scope for mitigating the effects of high interest rates by blending ordinary loans with funds made available through a "soft window". The effectiveness of this method, however, depends on the magnitude of resources made available for soft lending. For example, while the third replenishment of IDA, approved in 1970,¹⁵ provided for a considerable increase in the resources of IDA, the increase would probably be adequate only to keep pace with the growth in the ordinary lending of the IBRD.

39. The importance of softer terms for both bilateral and multilateral flows of assistance is discussed in separate papers on the debt problem and on the proposal for a multilateral interest equalization fund.¹⁶

Chapter III

The conditions of assistance

A. PROGRAMME LENDING

40. In its decision 29 (II), paragraph 7, the Conference at its second session welcomed the increased availability of financial assistance for programme financing and stressed that external finance should be made available both for programmes and projects and should include local costs where necessary.

¹⁵ The United States contribution to the third replenishment has not yet received legislative approval.

¹⁶ See *Debt problems of developing countries* (United Nations publication, Sales No. E.72.II.D.12) and "Multilateral interest equalization fund and related problems: report by the UNCTAD secretariat" (TD/B/C.3/76).

41. The Pearson Commission made the following two recommendations with respect to programme aid:¹⁷

Aid-givers should adapt the forms of aid to the needs and level of development of the receiving country and recognize the great value, in many cases, of more program aid.

and

IDA should undertake program lending wherever appropriate, seeking, if necessary, statutory change to make this possible.

42. There are no readily available statistics on the extent of programme aid given by the aid suppliers. A study carried out by the OECD¹⁸ shows that the following countries extend to a varying degree programme aid to recipient countries: Australia, Austria, Belgium, Canada, Denmark, Federal Republic of Germany, France, Italy, Japan, Netherlands, Sweden, United Kingdom and United States. The survey indicates that the conditions and circumstances under which the programme aid is extended vary considerably from country to country.

43. With regard to multilateral agencies, three banks are exclusively project lenders: AsDB, EIB and IDB. The EDF, however, does finance general development activities. An important feature of the proposed Special Programme of AfDB is its emphasis on programme aid.¹⁹ The IBRD group makes a modest amount of funds available for programme lending. Roughly 7 per cent of

¹⁷ See *Partners in Development*, op. cit., recommendations 11 and 12, p. 190.

¹⁸ OECD, *Resources for the Developing World: The Flow of Financial Resources to less Developed Countries, 1962-1968* (Paris, 1970), part one.

¹⁹ See AfDB, Interim Report, January-July 1970, p. 9.

the cumulative total of loans granted by the IBRD and IDA have been in the form of "general development and programme loans", but roughly one-third of this has been allocated to Europe and Australasia. Only small amounts have gone to Africa and virtually none to Latin America.²⁰

44. Since there are circumstances in which assistance tied to imports of capital goods for investment projects will not permit effective support of a country's development efforts, the availability of adequate amounts of programme aid is of great importance to a number of developing countries. Programme assistance may be particularly effective in cases where a country has reached a stage of development where it is able to produce domestically a high proportion of the capital goods needed for its investment programme, while requiring an increasing volume of other imports to sustain growth. Moreover, where underutilization of existing industrial capacity is due to an inability to finance imports of complementary inputs, programme assistance may be more effective than project assistance, which would expand capacity still further. While the foregoing instances relate to countries that have already achieved a certain level of industrial development, programme lending may be of importance for the least developed countries also, notably in cases where an inadequate supply of freely usable foreign exchange threatens to disrupt the growth process. This could occur, for example, where there had been stagnation or a fall in export earnings for reasons beyond a country's control, or where a country was faced with high levels of debt service payments.

45. If aid resources are to be used to maximum effect, it will be important for donor countries to adopt flexible positions with respect to the share of programme assistance in their total aid outlays. As one of the more rapidly growing sources of financial flows, it is particularly desirable that the IBRD group should raise the proportion of its outlays designed for programme aid significantly above past levels.

B. UNTYING OF AID

46. At its second session, the Conference took the view that, in principle, financial assistance should be untied, and consequently urged the developed countries "to take what practical measures they can, individually or collectively, both to reduce the extent of tying and to mitigate any harmful effects" (decision 29 (II), paragraphs 17 and 18). The Pearson Commission also recommended progressive untying of all bilateral and multilateral aid,²¹ and the International Development Strategy reaffirmed the principle (paragraph 45).

47. Some DAC member countries have recently taken certain concrete steps to reduce the extent of aid tying. The Canadian Government has decided to make available for procurement in developing countries 20 per cent of its bilateral assistance; Japan and the United Kingdom have liberalized the procurement procedures applied to their contributions to the Consolidated Fund of AsDB, and, in the case of the United Kingdom, to IDB; and the

United States has authorized procurement in developing countries under its bilateral lending programme. Other countries have taken measures designed to mitigate the harmful effects of aid tying, such as providing greater flexibility in the choice of goods, better price and quality checks, and the use of independent consultants.²²

48. In addition, DAC member countries have agreed on the desirability of taking further broad measures to untie aid. At the High Level Meeting of the OECD Development Assistance Committee in September 1970, members agreed on the principle that contributions to multilateral institutions should not be tied. For the first time, a large majority of members also declared themselves prepared in principle to adhere to an agreement to untie their bilateral development assistance.

49. At a recent ministerial meeting of the Council of the OECD, it was noted that "substantial progress had been made in drawing up a draft agreement on aid untying to be proposed to Governments who would be invited to indicate whether they wish to participate". The Ministers also "agreed that work on aid untying should be actively pursued in the DAC and expressed the hope that co-ordinated action with respect to untying could be taken at an early date".²³

50. The measures announced by the United States Government in August 1971 to deal with economic problems included postponement of participation in a multilateral arrangement for aid untying. In this respect the DAC Chairman has stated:²⁴

While all nations had not agreed to participate at this time, those that were ready to do so were naturally not prepared to proceed without the United States. It may be possible, however, further to extend untying for procurement in developing countries, which the United States continues to authorize. And of course as soon as current international economic negotiations have been brought to a successful conclusion, work will be resumed in DAC to resolve the remaining obstacles to a wide and generous agreement.

51. Depending on the precise terms of the agreement, the untying of development lending could mark an important step forward in improving the conditions of assistance, and in substantially increasing the volume of goods and services that could be procured out of a given total of lending. To be fully effective, such an agreement would need to contain certain basic features. The most important of these is that the procurement of goods and services of a type suitable for international competitive bidding should be open to tendering by suppliers in all developed countries participating in the agreement as well as in all developing countries. This procedure should apply to both project and non-project lending. Invitations to bid should be announced well in advance and should be given wide publicity, so that all eligible suppliers would have adequate time in which to prepare their bids. Exceptions to the principle of open international tendering should be restricted to those instances in which a clear economic justification exists.

²⁰ See IBRD-IDA, *Annual Report, 1971*, p. 108.

²¹ *Partners in Development*, op. cit., recommendation 3, p. 189.

²² OECD, *Development Assistance, 1970 Review* (Paris, 1970), p. 53.

²³ OECD, Press release (PRESS/A(71)18), of 8 June 1971, p. 4.

²⁴ OECD, *1971 Review*, . . . , p. 12.

52. Special measures would be required to ensure that the underlying purpose of the agreement was not frustrated by indirect or informal tying. Thus it would be necessary to provide that the choice of projects that individual donor countries are prepared to finance should not be limited in a way that systematically favours suppliers in the financing country. Moreover, the choice of consultants and of consulting firms, and the way in which procurement specifications and standards are defined, should be such as to ensure that the subsequent procurement is free from bias or extraneous influence. It would be necessary to avoid such practices as the mixing of development loans and export credits in a single package, and delaying the granting of loans until after national suppliers have successfully tendered for projects.

53. The developing countries would stand to benefit considerably even if untying were limited to the participants in an agreement along the above lines. It would also be desirable, however, that such an agreement should embody the greatest possible flexibility in procurement from sources of supply in the recipient countries. Thus it would be desirable to liberalize provisions having the effect of limiting development lending to the import content of projects, since such stipulations exclude suppliers in the recipient countries and also discriminate against social and other projects that characteristically have a low import content. Where loans are used to finance local costs, restrictions should not be placed on the use of the foreign exchange thereby made available. Consideration should also be given to allowing a margin of

preference to local suppliers (as well as to suppliers from other countries in a regional grouping of which the recipient country is a member) when participating in an open international tender.²⁵

54. Multilateral lending institutions should undertake to follow similar procedures. The question of geographic eligibility for procurement has arisen in the case of the regional development banks, and the principle has been applied that developed countries should be eligible sources of procurement only to the extent that they themselves supply resources to the institution in question. This restriction should not, however, limit the eligibility of developing countries: all multilateral lending institutions, whether regional or global in scope, should regard all developing countries as eligible sources of procurement, which is not universally the case at present.

Chapter IV

Geographical distribution of official bilateral and multilateral assistance

55. As may be seen from table 9, the geographical distribution of net official bilateral and multilateral flows changed considerably during the second half of the 1960s. Developing countries in the Western Hemisphere and Oceania increased their share in total assistance from

²⁵ The World Bank and IDB customarily grant a margin of preference of up to 15 per cent to local suppliers.

TABLE 9
Official bilateral and multilateral flows to developing countries, 1964-1965 and 1969-1970
(Net disbursements in \$U.S. million)

Developing region ^a	1964-1965 (annual average)		1969-1970 (annual average)	
	Amount	Per cent of total	Amount	Per cent of total
Africa, total ^b	1 733	27.1	1 714	22.3
North of Sahara	569	8.9	342	4.4
South of Sahara	1 138	17.8	1 337	17.4
America, total ^b	993	15.5	1 420	18.4
North and Central	266	4.2	536	7.0
South	586	9.1	856	11.1
Asia, total ^b	3 016	47.1	3 584	46.5
Middle East	273	4.2	294	3.8
South Asia	1 869	29.2	1 394	18.1
Far East	853	13.3	1 870	24.3
Oceania	93	1.5	253	3.3
TOTAL ^c	6 405	100.0	7 700	100.0

Sources: OECD, *Geographical Distribution of Financial Flows to Less Developed Countries* (Paris, various issues) and 1971 Review, . . . , pp. 186-187.

^a Country coverage of developing regions, following the classification adopted in sources:

Africa North of Sahara: Algeria, Egypt, Libyan Arab Republic, Morocco, and Tunisia.

Africa South of Sahara: Remaining developing countries in Africa.

America, North and Central: Bahamas, Bermuda, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, British Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Trinidad and Tobago and British West Indies.

South America: Remaining developing countries in the Americas.

Middle East: Bahrain, Iran, Iraq, Israel, Jordan, Lebanon, Muscat and Oman, Qatar, Saudi Arabia, Syria, Trucial Oman and Yemen.

South Asia: Afghanistan, Burma, Ceylon, India, Nepal and Pakistan.

Far East: Remaining developing countries in Asia.

^b Including unallocated disbursements.

^c Including flows to European recipient countries and unallocated disbursements.

15.5 per cent and 1.5 per cent respectively in 1964-1965 to 18.4 per cent and 3.3 per cent in 1969-1970.

56. While the share of Asian developing countries in total net flows remained constant between the periods 1964-1965 and 1969-1970 there were considerable changes in the distribution of assistance among the three major Asian sub-regions. In South Asia, the most populous sub-region, the average annual flow of assistance registered a decline of \$475 million between these periods. This reflected primarily a decrease of net flows to India and Pakistan. In the case of India, net flows declined from \$1,244 million in 1964-1965 to \$820 million in 1969-1970.

The corresponding figures for Pakistan were \$521 million and \$422 million, respectively.

57. The share of African developing countries in total net official bilateral and multilateral flows declined sharply from 27.1 per cent in 1964-1965 to 22.3 per cent in 1969-1970. In the case of countries north of the Sahara net flows declined by \$227 million over this period. While the decline in the share of assistance to developing countries south of the Sahara was minor, the level increased by only \$199 million between the period 1964-1965 and 1969-1970 and a number of the least developed countries of the region experienced a fall in the level of assistance.

STATISTICAL ANNEX

TABLE A-1

Total net flow of financial resources to developing countries
in Africa, Asia and Latin America, 1960-1970

(Net disbursements in \$U.S. million)

Year	Total *	From developed economy countries	From multilateral institutions
1960	7 019	6 600	289
1961	7 934	7 509	210
1962	7 851	7 152	399
1963	8 540	7 544	616
1964	9 004	7 855	719
1965	10 206	8 984	802
1966	10 173	9 016	822
1967	10 835	9 603	1 002
1968	11 980	10 941	789
1969	12 557	11 246	1 081
1970	13 979	12 326	1 403

Source: UNCTAD secretariat, based on OECD, 1971 Review, ..., and data supplied by the OECD secretariat directly and by the United Nations Department of Economic and Social Affairs.

* Includes rough estimates of net disbursements from socialist countries to developing countries, exclusive of Cuba. These estimates are derived from the OECD Press release (PRESS/A(71)22), of 28 June 1971, and should be taken only as reflecting a broad order of magnitude.

TABLE A-2

Net flow of financial resources from DAC member countries to developing countries in Africa, Asia and Latin America
and to multilateral institutions, 1969-1970

(\$U.S. million)

Country	Official development assistance		Other official flows		Private flows		Total		Percentage share of DAC total	
	1969	1970	1969	1970	1969	1970	1969	1970	1969	1970
Australia	175	203	25	27	58	159	258	389	2.0	2.7
Austria	14	19	7	7	47	42	68	68	0.5	0.5
Belgium	114	118	10	5	112	162	236	285	1.8	2.0
Canada	245	343	44	37	75	178	364	558	2.9	3.9
Denmark	54	59	6	3	62	36	122	98	1.0	0.7
Federal Republic of Germany	502	555	-69	86	1 104	505	1 537	1 146	12.0	8.1
France	921	924	18	42	730	806	1 669	1 772	13.1	12.5
Italy	79	153	35	58	698	531	812	742	6.4	5.2
Japan	433	459	336	633	436	673	1 205	1 765	9.4	12.5
Netherlands	139	195	8	15	205	238	352	448	2.8	3.2
Norway	29	36	15	8	34	26	78	70	0.6	0.5
Portugal	58	29	14	30	18	7	90	66	0.7	0.5
Sweden	121	116	—	—	82	67	203	183	1.6	1.3
Switzerland	29	29	-6	-5	80	88	103	112	0.8	0.8
United Kingdom	414	416	-3	7	660	686	1 071	1 109	8.4	7.8
United States	3 048	3 003	135	154	1 408	2 185	4 591	5 342	36.0	37.7
DAC TOTAL	6 375	6 657	575	1 107	5 809	6 389	12 759	14 153	100.0	100.0

Source: UNCTAD secretariat, based on OECD, 1971 Review, ..., and data supplied by the OECD secretariat directly.

TABLE A-3

Performance under the 1 per cent target ^a—DAC member countries, 1960–1970
(Percentage of GNP)

Country	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Australia	0.51	0.54	0.41	0.49	0.53	0.59	0.64	0.87	0.88	0.82	1.14
Austria	-0.13	0.06	0.16	—	0.19	0.52	0.33	0.40	0.52	0.55	0.48
Belgium	1.51	1.32	0.91	1.21	0.96	1.05	0.91	0.79	1.07	1.03	1.13
Canada	0.36	0.22	0.29	0.28	0.33	0.36	0.50	0.44	0.49	0.50	0.69
Denmark	0.51	0.35	0.16	-0.02	0.19	0.14	0.25	0.28	0.74	0.87	0.63
Federal Republic of Germany	0.76	0.92	0.70	0.58	0.57	0.56	0.51	0.86	1.11	1.00	0.62
France	2.16	2.03	1.89	1.52	1.46	1.30	1.19	1.08	1.27	1.19	1.22
Italy	0.62	0.47	0.76	0.57	0.35	0.39	0.76	0.33	0.64	0.99	0.80
Japan	0.38	0.57	0.37	0.34	0.35	0.49	0.56	0.61	0.64	0.73	0.90
Netherlands	2.25	1.66	0.88	0.87	0.66	1.16	1.16	0.85	1.01	1.25	1.43
Norway	0.11	0.23	0.08	0.24	0.22	0.38	0.15	0.33	0.67	0.80	0.62
Portugal	3.05	1.63	1.41	1.65	1.57	0.74	0.73	1.40	0.78	1.61	1.04
Sweden	0.31	0.13	0.21	0.28	0.40	0.34	0.43	0.43	0.46	0.72	0.58
Switzerland	1.81	2.09	1.45	1.30	0.66	1.07	0.57	0.81	1.10	0.55	0.54
United Kingdom	1.04	1.09	0.88	0.74	0.91	0.96	0.82	0.72	0.68	0.97	0.91
United States	0.68	0.77	0.70	0.70	0.69	0.74	0.61	0.65	0.62	0.49	0.54
DAC TOTAL	0.81	0.86	0.75	0.70	0.69	0.74	0.66	0.68	0.73	0.70	0.71

Sources: Based on United Nations, *Monthly Bulletin of Statistics*, October 1968, and *Yearbook of National Accounts Statistics*, various issues; IMF, *International Financial Statistics*, various issues; and sources cited in table A-1.

^a Net flow of financial resources to developing countries in Africa, Asia and Latin America and to multilateral institutions as a percentage of GNP at market prices.

TABLE A-4

Net flow of resources from multilateral institutions ^a to developing countries
in Africa, Asia and Latin America, 1960–1970
(Net disbursements in \$U.S. million)

Agency	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
AfDB ^b	—	—	—	—	-5	-26	-7	-7	-10	-8	-2
AsDB ^c	—	—	—	—	—	—	-28	-33	-29	-24	-15
EDF	4	17	55	67	85	105	117	104	110	117	145
EIB ^c	—	—	—	—	—	—	2	5	5	11	10
IBRD	259	197	272	250	231	257	211	197	171	215	347
IDA	-23	-37	-26	42	95	259	254	351	189	234	151
IFC	13	9	12	7	10	9	20	18	20	47	54
IDB ^d	-69	-106	-53	71	104	1	10	108	19	160	300
United Nations agencies	105	130	139	179	199	197	244	259	314	328	413
TOTAL	289	210	399	616	719	802	822	1 002	789	1 081	1 403

Source: UNCTAD secretariat, based on reports of multilateral agencies.

^a Grants and loans less subscriptions and contributions (regardless of whether made in the currency of the recipient country or in other currencies) and participation and repayments where relevant. The data are also net of changes in holdings in developing countries of the funded debt of IBRD and IDB. Negative figures indicate subscriptions, contributions and participations in excess of disbursements, net of repayments.

^b First year of transactions: 1964.

^c First year of transactions: 1966.

^d Social Progress Trust Fund disbursements are reported as bilateral assistance of the United States.

TABLE A-5

Commitments of bilateral economic assistance to developing countries in Africa, Asia and Latin America from the socialist countries of eastern Europe and Asia, 1960-1970 ^a

(\$U.S. million)

Country	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Bulgaria	—	12	—	6	5	17	15	47	35	20	82
China, People's Republic of	45	154	11	88	305	77	6	—	42	—	695
Czechoslovakia	115	146	1	20	118	43	192	88	200	37	45
German Democratic Republic	27	46	—	—	71	132	—	231	8	134	125
Hungary	34	111	—	14	10	42	52	45	40	21	79
Poland	65	128	88	8	54	22	—	63	20	30	25
Romania	—	100	—	—	73	—	—	14	45	132	10
USSR	582	302	214	205	618	330	1 033	133	368	402	633
TOTAL	868	999	314	341	1 254	663	1 298	621	758	776	1 694

Sources: United Nations, *World Economic Survey, 1969-1970* (United Nations publication, Sales No. E.71.II.C.1), pp. 169-170, and additional information supplied by the Centre for Development Planning, Projections and Policies of the United Nations Secretariat.

^a Excluding commitments to Cuba.

TABLE A-6

Geographical distribution of official bilateral (DAC member countries) and multilateral flows to developing countries, 1960-1970

(\$U.S. million)

Developing region ^a	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Africa ^b	1 481.8	1 654.7	1 777.2	1 663.6	1 762.2	1 701.2	1 590.7	1 601.0	1 579.5	1 642.5	1 785.3
North of Sahara	797.3	801.9	776.5	688.4	666.1	470.8	349.8	305.7	334.2	296.4	385.5
South of Sahara	683.2	849.9	998.7	970.2	1 076.6	1 198.6	1 205.4	1 266.8	1 208.3	1 308.9	1 365.5
America ^b	288.9	767.8	856.4	1 096.7	990.2	994.6	1 180.5	1 182.0	1 300.5	1 284.3	1 555.4
North and Central	120.0	164.3	169.4	259.9	198.1	331.1	463.9	488.7	535.8	457.3	615.4
South	125.5	552.3	612.5	734.5	622.8	547.9	733.8	658.7	722.0	806.3	903.6
Asia ^b	2 244.3	2 211.1	2 378.8	2 738.8	2 842.9	3 188.0	3 198.9	3 685.4	3 451.6	3 509.9	3 662.6
Middle East	282.1	392.9	324.9	286.9	237.9	306.6	270.4	255.0	272.6	290.6	297.9
South	1 121.5	1 011.4	1 197.0	1 595.8	1 821.9	1 915.2	1 768.0	2 034.2	1 652.8	1 383.8	1 404.0
Far East	838.5	804.0	844.9	839.1	761.2	944.1	1 135.9	1 373.2	1 501.4	1 797.6	1 947.6
Oceania	23.3	26.3	41.1	43.7	42.9	142.2	149.8	165.4	192.7	221.8	283.8
TOTAL ^b	4 176.3	4 857.8	5 303.5	5 817.2	5 799.4	6 212.6	6 358.9	6 896.3	6 869.8	7 000.7	7 501.0

Sources: OECD, *Geographical Distribution of Financial Flows to Less Developed Countries* (Paris), various issues, and *1970 Review* and *1971 Review*, op. cit.

^a For country coverage of developing regions, see table 9 in text.

^b Including unallocated disbursements.

TABLE A-7

Geographical distribution of official bilateral (DAC member countries)
and multilateral flows to developing countries, 1960-1970
(Net disbursements per cent)

Developing region ^a	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Africa ^b	35.5	34.1	33.5	28.6	30.4	27.4	25.0	23.2	23.0	23.5	23.8
North of Sahara	19.1	16.5	14.6	11.8	11.5	7.6	5.5	4.4	4.9	4.2	5.1
South of Sahara	16.4	17.5	18.8	16.7	18.6	19.3	19.0	18.4	17.6	18.7	18.2
America ^b	6.9	15.8	16.1	18.9	17.1	16.0	18.6	17.1	18.9	18.3	20.7
North and Central	2.9	3.4	3.2	4.5	3.4	5.3	7.3	7.1	7.8	6.5	8.2
South	3.0	11.4	11.5	12.6	10.7	8.8	11.5	9.6	10.5	11.5	12.0
Asia ^b	53.7	45.5	44.9	47.1	49.0	51.3	50.3	53.4	50.2	50.1	48.8
Middle East	6.7	8.1	6.1	4.9	4.1	4.9	4.3	3.7	4.0	4.2	4.0
South	26.9	20.8	22.6	27.4	31.4	30.8	27.8	29.5	24.1	19.8	18.7
Far East	20.1	16.6	15.9	14.4	13.1	15.2	17.9	19.9	21.8	25.7	26.0
Oceania	0.6	0.5	0.8	0.7	0.7	2.3	2.4	2.4	2.8	3.2	3.8
TOTAL ^b	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: See table A-6.

^b Including unallocated disbursements.^a For country coverage of developing regions, see table 9 in text.

TABLE A-8

Geographical distribution of official bilateral (DAC member countries)
flows to developing countries, 1960-1970
(Net disbursements in \$ U.S. million)

Developing region ^a	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Africa ^b	1 323.7	1 532.4	1 632.0	1 551.6	1 576.6	1 484.6	1 399.2	1 395.2	1 324.6	1 341.0	1 374.0
North of Sahara	708.5	788.2	756.0	679.2	637.8	455.0	339.2	297.9	306.2	272.3	345.0
South of Sahara	615.3	743.2	874.0	867.4	925.6	1 005.4	1 030.5	1 074.8	992.0	1 039.0	1 010.9
America ^b	278.2	816.7	787.4	810.3	676.2	837.1	967.8	872.1	1 085.5	910.9	956.9
North and Central	89.9	188.7	140.8	139.1	97.5	279.4	363.5	392.7	439.8	338.6	388.2
South	146.9	578.1	573.1	573.0	421.1	452.3	567.3	448.9	616.0	561.6	523.9
Asia ^b	2 143.0	2 086.7	2 185.5	2 529.6	2 630.6	2 771.0	2 858.8	3 278.0	3 176.6	3 136.4	3 315.8
Middle East	253.9	349.4	257.2	227.3	193.1	232.7	215.8	200.0	249.7	229.7	225.2
South	1 059.2	948.0	1 109.7	1 489.0	1 701.7	1 637.7	1 549.2	1 715.6	1 454.7	1 165.8	1 273.6
Far East	829.9	789.3	806.6	796.3	719.1	885.5	1 074.5	1 344.7	1 453.6	1 707.3	1 813.3
Oceania	23.2	25.9	40.7	43.3	42.3	141.4	147.0	161.3	189.0	219.7	275.5
TOTAL ^b	3 886.6	4 633.5	4 889.1	5 178.8	5 074.6	5 413.3	5 578.7	5 935.9	6 101.3	5 946.0	6 092.3

Sources: See table A-6.

^b Including unallocated disbursements.^a For country coverage of developing regions, see table 9 in text.

TABLE A-9

Geographical distribution of flows from multilateral institutions
to developing countries, 1960-1970

(Net disbursements in \$U.S. million)

Developing region ^a	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Africa ^b	158.1	122.3	145.2	112.0	185.6	216.6	191.5	205.8	254.9	301.5	411.3
North of Sahara	88.8	13.7	20.5	9.2	28.3	15.8	10.6	7.8	28.0	24.1	40.5
South of Sahara	67.9	106.7	124.7	102.8	151.0	193.2	174.9	192.0	216.3	269.9	354.6
America ^b	10.7	-48.9	69.0	286.4	314.0	157.5	212.7	309.9	215.0	373.4	598.5
North and Central	30.1	-24.4	28.6	120.8	100.6	51.7	100.4	96.0	96.0	118.7	227.2
South	-21.4	-25.8	39.4	161.5	201.7	95.6	166.5	209.8	106.0	244.7	379.7
Asia ^b	101.3	124.4	193.3	209.2	212.3	417.0	340.1	407.4	275.0	373.5	346.8
Middle East	28.2	43.5	67.7	59.6	44.8	73.9	54.6	55.0	22.9	60.9	72.7
South	62.3	63.4	87.3	106.8	120.2	277.5	218.8	318.6	198.1	218.0	130.4
Far East	8.6	14.7	38.3	42.8	42.1	58.6	61.4	28.5	47.8	90.3	134.3
Oceania	0.1	0.4	0.4	0.4	0.6	0.8	2.8	4.1	3.7	2.1	8.3
TOTAL ^b	289.7	224.3	414.4	638.4	724.8	799.3	780.2	960.4	768.5	1 054.5	1 408.7

Sources: See table A-6.

^b Including unallocated disbursements.^a For country coverage of developing regions, see table 9 in text.

THE LINK

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report, which is a revised version of TD/B/356, was circulated to the Conference as document TD/118/Supp.4, dated 22 December 1971. It will also be issued separately as a United Nations publication.

Introduction

1. The Trade and Development Board, at the first part of its tenth session, took note of the statement of the developing countries members of the Board concerning international liquidity (reproduced in appendix B to Board decision 64 (IX)) and of the memorandum submitted by the developing countries entitled "A second memorandum on international liquidity: the position of the developing countries on the link".¹ The Board requested the Secretary-General of UNCTAD to keep himself informed of developments in this matter and to report to the Board at its eleventh session.² The present report has been prepared by the UNCTAD secretariat in response to this request.

Chapter I Legislative history

2. The proposal that the provision of development finance should be linked to the creation of new international liquidity was advocated in 1965 by a Group of Experts appointed by the Secretary-General of UNCTAD.³

¹ See *Official Records of the General Assembly, Twenty-fifth Session, Supplement No. 15* (A/8015/Rev.1), part two, annex IV.

² *Ibid.*, part two, para. 194 (c) (ii).

³ See *International monetary issues and the developing countries: report of the Group of Experts* (United Nations publication, Sales No. 66.II.D.2).

It was supported and further elaborated by a second UNCTAD Group of Experts in 1969.⁴ The proposal was

⁴ See *International monetary reform and co-operation for development: report of the Expert Group on International Monetary Issues* (United Nations publication, Sales No. E.70.II.D.2), chaps. IV and V. See also the study by Harry H. Bell, "Institutional aspects of linking development financing with reserve creation under the Rio Agreement" (TD/B/AC.8/R.2/Add.1). The proposal has also been studied in the note by the secretariat of UNCTAD, "Progress report on international monetary reform" (TD/7/Supp.7) (see *Proceedings of the United Nations Conference on Trade and Development, Second Session*, vol. IV, *Problems and policies of financing* (United Nations publication, Sales No. E.68.II.D.17, p. 211), and in the study by the UNCTAD secretariat, *Issues relating to development financing and trade of developing countries* (United Nations publication, Sales No. E.69.II.D.9). See also "Submissions by Governments to the Group of Experts on International Monetary Issues: note by the Secretary-General of UNCTAD" (*Official Records of the Trade and Development Board, Third Session, Annexes*, agenda items 6 and 11, document TD/B/33), "Consideration of the report of the Group of Experts on International Monetary Issues—communiqué of the Ministers and Governors of the Group of Ten issued on 28 September 1965: note by the Secretary-General of UNCTAD" (*ibid.*, document TD/B/35); "Memorandum on international liquidity" (*ibid.*, *Third Session, Supplement No. 4*, (TD/B/57/Rev.1), annex I); "A second memorandum on international liquidity: the position of the developing countries on the link" (see *Official Records of the General Assembly, Twenty-fifth Session, Supplement No. 15* (A/8015/Rev.1), part two, annex IV). See also the following resolutions of the General Assembly: resolution 2461 (XXIII), resolution 2565 (XXIV) and resolution 2626 (XXV).

endorsed by the Committee for Development Planning at its sixth session.⁵

3. The Pearson Commission commented that:

... there are strong reasons of simplicity and equity for the developed countries to relinquish a part of their quota of the new reserve medium in favour of the less developed countries. IDA may be a channel by which the contribution of the resources to development could be assured, and proposals for making use of this channel in this way are worthy of further study.⁶

4. At the fourth session of the Committee on Invisibles and Financing related to Trade, the developing countries expressed their support for the link⁷ and issued a joint memorandum containing a reasoned case for the scheme.⁸

5. The link has received the support of the Government of Italy.⁹ Other developed market-economy countries have generally expressed opposition to the link either in principle or because they believed consideration of the link was premature.¹⁰

6. The link has been recommended by the Joint Economic Committee of the Congress of the United States of America¹¹ and by the United Kingdom House of Commons Select Committee on Overseas Aid.¹² The Commonwealth Finance Ministers, meeting in September 1970, agreed that IMF members ought to be adequately prepared for consideration of a link by 1972, when a decision would have to be taken concerning the next round of SDR allocation.¹³

7. In the course of their addresses to the 1970 Joint Annual Meeting of IMF and IBRD group, held in Copenhagen, a number of Governors discussed the proposal for a link. In his concluding remarks, Mr. Pierre-Paul Schweitzer, the Managing Director of IMF, stated in connexion with special drawing rights:

Even though we are only in the early phase of the first basic period, a number of suggestions have been made for the study by the Fund of modifications of the facility. These range from some of a more technical character to fundamental changes such as would be involved in establishing a link of some kind between the issuance of Special Drawing Rights and the financing of economic development. I am sure that the Executive Directors will want to give careful consideration to the Fund's programme of work in this field.¹⁴

8. Mr. Robert S. McNamara, President of the IBRD group, also referred to the link in the course of his concluding remarks. He said:

I would like to comment upon the possible link of Special Drawing Rights to development finance. I think no other subject was referred to as frequently during the week's discussions as such a possible link between Special Drawing Rights and development finance. Sharply conflicting views are, I know, held with respect to the desirability of such a link, but I think the great majority of those who spoke urged that the subject be given careful study. Mr. Schweitzer referred to it a moment ago. Because the availability of more concessional finance is of such vital importance to the development process, the Bank is prepared to give assistance in any study of this matter undertaken by the Fund.¹⁵

9. Subsequently, the Executive Directors of IMF began consideration of the main issues that would have to be studied in any effort to determine the desirability and feasibility of a link.

10. The International Development Strategy for the Second United Nations Development Decade, adopted by the General Assembly of the United Nations in resolution 2626 (XXV), states, in paragraph 52, that:

As soon as adequate experience is available on the working of the scheme of Special Drawing Rights, serious consideration will be given to the possibility of the establishment of a link between the allocation of new reserve assets under the scheme and the provision of additional development finance for the benefit of all developing countries. The question will, in any case, be examined before the allocation of Special Drawing Rights in 1972.¹⁶

11. At their meeting in September 1971, the Commonwealth Finance Ministers expressed the hope that the studies being undertaken by IMF would be completed as early as possible and attached importance to the results of the studies becoming available well before the time when decisions must be taken in 1972.¹⁷

12. In General Assembly resolution 2806 (XXVI) of 14 December 1971 concerning the international monetary situation, the General Assembly resolved that "the creation of a link between special drawing rights and additional resources for financing development as an integral

⁵ See *Official Records of the Economic and Social Council, Forty-ninth Session, Supplement No. 7 (E/4776)*, para. 82.

⁶ See *Partners in Development: report of the Commission on International Development* (London, Pall Mall Press, 1969), p. 225.

⁷ See *Official Records of the Trade and Development Board, Tenth Session, Supplement No. 4 (TD/B/318)*, para. 24.

⁸ *Ibid.*, annex III.

⁹ See statement by the Governor for Italy at the annual meeting of the Board of Governors of IMF, in IMF, *Proceedings of the Twenty-fourth Annual Meeting of the Board of Governors, September 29-October 3, 1969* (Washington, D.C.), p. 71.

¹⁰ The representative of the United Kingdom at the fourth session of the Committee on Invisibles and Financing related to Trade stated that, in principle, his Government supported the idea of a link provided that a practicable scheme acceptable to the main countries concerned could be worked out. That could not be until SDRs had been firmly established, which they had not yet been, and further work needed to be done on methodology including the question of burden-sharing (see *Official Records of the Trade and Development Board, Tenth Session, Supplement No. 4 (TD/B/318)*, para. 30).

¹¹ See *1971 Joint Economic Report*, Report of the Joint Economic Committee of the Congress of the United States on the February 1971 Economic Report of the President (U.S. Government Printing Office, Washington, 1971), pp. 14-15.

¹² See *Report from the Select Committee on Overseas Aid, Session 1970-1971*, House of Commons Paper 299 (London, H.M. Stationery Office), paras. 180-181.

¹³ For the text of the relevant passage in the communiqué of the Commonwealth Finance Ministers, see annex II to the present report.

¹⁴ See IMF, *Summary Proceedings of the Twenty-fifth Annual Meeting of the Board of Governors, September 1970* (Washington, D.C.), p. 228.

¹⁵ See IBRD, *Annual Meetings of the Board of Governors, Summary Proceedings, Copenhagen, September 21-25, 1970* (Washington, D.C.), p. 197.

¹⁶ The following Governments indicated reservations with respect to this paragraph of the Strategy: Australia, Belgium, Canada, Denmark, Finland, France, Japan, Netherlands, United Kingdom, United States of America. In addition, Chile rejected the wording of this paragraph on the grounds that it contained no commitment concerning the establishment of a link. (See *Official Records of the General Assembly, Twenty-fifth Session, Annexes, agenda item 42, document A/8124/Add.1*).

¹⁷ For the text of the relevant passage in the communiqué of the Commonwealth Finance Ministers, see annex II to the present report.

part of the new international monetary system" should be taken into account, *inter alia*, in the reform of the international monetary order.

13. At the fifth session of the Committee on Invisibles and Financing related to Trade, the developing countries submitted a declaration on international monetary issues in which they urged IMF to expedite the study on the link and invited the Managing Director to submit a report thereon to the third session of the Conference.¹⁸

Chapter II

The rationale of the link

14. The proposal of the second UNCTAD Group of Experts was essentially that the developed countries should contribute a portion of their allocation of SDRs to multilateral financial institutions such as IDA and the regional development banks. Since no interest would be charged on these contributions, there would be an increase in the flow of resources on concessional terms to developing countries.

15. The UNCTAD Experts studied two main approaches by which the link could be implemented. One method (commonly known as the "organic"¹⁹ link) would involve the contribution of SDRs by the developed countries participating in the scheme to IDA out of their allocations. The other (the so-called "non-organic" link) would involve contributions in national currencies by the developed countries to IDA in proportion to the SDRs allocated to them. In addition, the Experts referred to a third method (another form of the "organic" link) whereby IMF would allocate some SDRs directly to IDA.²⁰

16. In all these schemes, the amount of SDR allocations to be directly or indirectly linked would be a matter for prior agreement among Governments. The volume and timing of SDR creation would be determined entirely by the monetary requirements of the world economy and not by the need for development finance.

17. Supporters of the link base their case on the proposition that the creation of SDRs involves a saving of resources which can and should be used to augment development assistance. The reasoning is that SDRs bring benefits of two kinds to the world economy. First, they permit the volume of international liquidity to be made subject to collective decisions of the international community on the basis of rational criteria rather than

to the vagaries of gold production or the deficits of particular countries. The distribution of SDRs thereby makes it possible to avoid any losses of real income that might otherwise result from an inadequate volume of world liquidity.

18. Secondly, it is pointed out, the new technique of reserve creation involves a saving of resources. Liquidity is created costlessly through SDRs without the expenditure of scarce resources to dig metal out of the ground, to refine it, to cast it into bars, to transport it, and to store it. Countries receiving SDR allocations acquire reserves without sacrificing real resources in the form of export surpluses.

19. It is recognized that resources cannot be "created" or "saved" endlessly simply by issuing more SDRs. But it is claimed that if the amount of SDRs created is in some sense "correct", there is an equivalent saving of resources compared with a system of commodity money.

20. It is therefore suggested that two distinct questions are involved in any decision on the pattern of SDR distribution. First, how to distribute the new liquidity brought about by SDR creation, and second, how to distribute the resource savings associated with this liquidity. Under the present arrangement both are distributed on exactly the same basis, namely IMF quotas. This, it is felt, mixes up the liquidity and resource-saving aspects of SDRs. From a logical standpoint the liquidity should be distributed to countries according to their relative needs for additional liquidity, and the resource-saving according to their relative needs for additional resources.

21. It is not necessary, in the present context, to consider how far IMF quotas reflect the relative liquidity requirements of countries and how far they allow for the relative inadequacy of reserves in developing countries and their limited access to alternative sources of short-term finance. The important point here is that the preponderance of developed countries in IMF quotas results from their relatively large share in world trade and world income, and not from their relative need for additional resources. The purpose of a link would be to attain a redistribution of resource-savings. Contributions to development finance institutions resulting from the link would serve to transfer some of these savings from developed countries to those in greatest need, the developing countries.

22. Advantage has also been seen in the link from the viewpoint of the international monetary system itself. Many of the developed countries view a rapid growth in exports as advantageous in permitting their industries to reap the benefits of higher levels of output. At the same time they are in many cases unwilling to absorb a comparable increase in imports, largely because of a desire to protect domestic employment. On the other hand, other developed market economies are generally unwilling to accommodate such surpluses through deficits in their own trade balances. Thus, the external objectives of the developed countries would be incompatible in the absence of adequate markets in the rest of the world. The recent monetary crisis, in which each country has sought to safeguard or to strengthen its trading position, has high-

¹⁸ See *Official Records of the Trade and Development Board, Twelfth Session, Supplement No. 2* (TD/B/395), p. 39.

¹⁹ The term "organic" was used to convey the fact that SDRs themselves would be utilized in making the requisite transfer to IDA and the regional development banks, so that the link would become, in effect, an organic part of the process of SDR creation and allocation. In "non-organic" forms of the link, on the other hand, the transfer to IDA would take place in conjunction with the allocation of SDRs but would consist of national currencies rather than of SDRs.

²⁰ See *International monetary reform and co-operation for development: report of the Expert Group on International Monetary Issues*, para. 41.

lighted the difficulties and dangers resulting from such incompatible objectives.

23. The danger of conflict would be diminished if the exports of the developed countries to the rest of the world were enlarged *pari passu* with the creation of liquidity. This takes place as a matter of course when developed countries acquire monetary gold, since this increases their export markets in gold-producing countries. By contrast, when they are allocated SDRs their export markets are unaffected. A link between SDR allocations and development finance would, however, serve to raise the demand for exports from developed countries. The adoption of such a link would mean that, as under a gold standard, developed countries would earn their reserves; but, in contrast to the gold standard, the acquisition of reserves would finance expenditures of a productive rather than of an unproductive character.

Chapter III

Issues raised by the link

24. A decision on the link calls for consideration of the following issues:

- (a) Is it legitimate to use SDRs for development assistance?
- (b) Would the link distort decision-making on SDRs?
- (c) How would the link affect the operation of the SDR facility?
- (d) Would the link be inflationary?
- (e) Would the link be disruptive to development finance?
- (f) Would the link increase development assistance?
- (g) Should aid be "debudgetized"?
- (h) Would the burden of link aid be shared equitably?
- (i) What form should a link take?
- (j) Would the link be premature at the present time?

(a) *Is it legitimate to use SDRs for development assistance?*

25. Critics of the link have argued that SDRs are a monetary asset and should perform a purely monetary role. According to this opinion, the creation of international liquidity should not be used to effect a permanent transfer of real resources and a redistribution of world income. Monetary reserves are intended for holding against balance-of-payments contingencies, and not for expenditure on long-term development.

26. Advocates of the link have replied that the accumulation of gold reserves also involves a permanent transfer of real resources—in this case to the gold-producing countries. On this view, the use of SDRs for transferring real resources therefore raises no new issue, and the main innovation would be that resource transfers resulting from a link would be subject to decision-making by the international community rather than to the accidental location of gold deposits. Moreover, under the SDR scheme, even in its present form, the obligation to hold SDRs is a strictly limited one, each participating

country being required to maintain its average holdings of SDRs at no more than 30 per cent of its net cumulative allocations over the preceding five-year period. The remaining 70 per cent of SDR allocations is therefore available for the acquisition of real resources on a permanent basis, if the participant so chooses. Consequently, no new issue of principle would appear to be involved in this respect either.

(b) *Would the link distort decision-making on SDRs?*

27. It has been suggested that if the level of SDR allocations were to have an automatic impact on the level of assistance, it would no longer be possible to determine the rate of SDR creation solely on the basis of the criteria at present agreed. The introduction into decision-making of extraneous considerations would, it is felt, compromise the monetary functions of SDRs. The existence of a link might prompt developing countries to exert pressure for the creation of a volume of SDRs larger than would be justified by the international monetary situation alone. Such countries might also resist any reduction in the rate of SDR creation that might be called for on monetary grounds under certain conditions. On the other hand, the existence of a link might induce some donor countries to opt out of allocations when they would not otherwise do so, or lead them to prefer a smaller volume of SDR creation.

28. Supporters of the link have denied that a link would distort decisions on the volume of SDR creation and have pointed out that in their "Second memorandum on international liquidity", the developing countries went on record as recognizing that the amount of new reserve creation should be determined solely by the monetary requirements of the world economy and not by the needs of development finance. Furthermore, developing countries may be said to have an interest in the level of SDR creation even without a link. Decisions on SDR creation would in any case remain solely a matter for IMF and would require the assent of the major industrial countries under the system of voting applicable in such circumstances.

29. Developed countries would want to go so far as opting out of SDR allocations only if they were totally opposed to the link in principle; and if this were the standpoint of any of the important aid-giving countries, it seems unlikely that the link could be brought into effect. If, however, countries agreed to accept the principle of the link, there is no reason why they should want to reduce the volume of SDR creation below the level that seemed appropriate in the light of the monetary requirements of the world economy.

(c) *How would the link affect the operation of the SDR facility?*

30. The "non-organic" link would not in any way affect the working of the SDR facility since it would not involve any transactions through the Special Drawing Account. However, both types of "organic" link would necessitate amendment of the Articles of Agreement of the IMF to permit the recipient development finance

agencies to hold SDRs.²¹ A procedure for the conversion of such SDRs into currencies would also have to be established. Further, the transfer of SDRs to IDA by countries would involve the use of SDRs without balance-of-payment need: this might be considered inconsistent with article XXV, section 3 of the Articles of Agreement. The direct allocation of SDRs by IMF to the recipient agencies would call for additional changes. In the latter case the acceptance obligations²² of participants would have to take into account the use of SDRs allocated to the development agencies as well as those allocated to participants. Provision would also have to be made for meeting the "claim" against the recipient institution that would arise in case of liquidation of the scheme or of withdrawal of the institution from the arrangements. New arrangements would be required to cover charges on the net use of SDRs by the recipient agency, unless that agency were to pay the standard rate of charge.

31. Advocates of the link have argued that none of these changes would involve a substantive modification of the SDR facility. They have pointed out that the "holding" of SDRs by development agencies would not lead to the "sterilization" of reserves since the SDRs given to them could be converted into national currencies as soon as they were received, to be held pending disbursements; or alternatively SDRs could be used to finance current disbursements under past commitments rather than future disbursements under new commitments. Nor need the conversion of SDRs present any problems. In the first type of "organic" link countries could be designated as recipients of the SDRs that they had initially contributed. A similar formula could also be used for a link involving the direct allocation of SDRs by the IMF directly to the lending agencies.

32. There would be no infringement of the provision²³ designed to prevent countries from using SDRs for the sole purpose of changing the composition of their reserves since no such change would result from the link. Moreover, in the case of a direct transfer of SDRs from IMF to IDA, there would be no change in the absolute level of acceptance obligations associated with given total volume of SDR allocations, but only an increase in the ratio of acceptance obligations to the initial allocations of SDRs received by each country. Finally it has been argued that countries could underwrite the "obligations" of the recipient agencies to the Fund and meet the interest charges on the SDRs used by these institutions. Such an arrangement, it is pointed out, would not have any adverse repercussions on the operation of the Special Drawing Account.

²¹ Under article XXIII, section 3, of the Articles of Agreement of IMF, only non-members, members that are not participants, and institutions that perform the functions of a central bank for more than one member can be prescribed as holders of SDRs, other than participants (see IMF, *Articles of Agreement of the International Monetary Fund as modified by the proposed Amendment* (Washington, D.C.), p. 42).

²² According to article XXV, section 4, of the Articles of Agreement a participant cannot be required to hold more SDRs than three times its net cumulative allocation (*ibid.*, p. 47).

²³ Article XXV, section 3, of the Articles of Agreement of IMF (*ibid.*, p. 46).

(d) *Would the link be inflationary?*

33. Critics of the link have taken the view that SDRs increase the world's stock of financial assets only, and not its real resources. Consequently, the use of SDRs by the major recipients to increase development expenditures would raise the level of aggregate demand and thereby generate inflationary pressures. The link has accordingly been depicted as an exercise in deficit finance on a global scale.

34. Proponents of the link have suggested that SDRs in fact release real resources by comparison with the alternative situation in which reserve accumulation involves an increase in holdings of monetary gold. They argue that the level of aggregate demand is no higher if reserves are accumulated through a link than it would be if an equivalent amount of gold were acquired—though it is, of course, higher than it would be if SDRs were simply added to reserves without a link (as under the present system of distribution of SDRs). Consequently, in their view, a transfer of real resources to developing countries in line with the creation of SDRs is no more inflationary than a corresponding transfer of real resources to gold-producing countries in exchange for gold.

35. Supporters of the link also agree that it is quite legitimate to insist that resources for link-financed aid should be released in a non-inflationary manner. However, in their view, the problem of matching total claims on resources with total supplies does not arise merely in connexion with the link but also in any building up of reserves that necessitates a transfer of real resources. Consequently, if the additional exports generated by the increase in assistance accompanying SDR allocations, taken together with demand from other sources, were to call for fiscal or monetary restraint, such action should be taken as part of the normal process of management of the economy—just as it would be in the event of a rise in exports for any other reason.

36. Moreover, so it is claimed, the orders of magnitude are such that the dangers of inflation are negligible. For example, even if \$1,000 million per annum were devoted to link aid, the increased assistance would equal only about one half per mille of the output of developed countries.

(e) *Would the link be disruptive to development finance?*

37. It has been suggested that since there is no presumption that the rate of SDR creation would be stable from year to year—it may fall to zero in some years—the flow of link-financed aid would fluctuate. This would make it difficult for IDA (or other recipient agencies) to plan ahead in committing funds for development projects.

38. While agreeing that a smooth flow of link aid would be preferable to an uneven one, advocates of the link have pointed out that even under existing conditions there is no long-term guarantee of resources for IDA or other multilateral lending agencies, and hence the link would not create any new problems in this respect. Moreover, since link aid would be only one component

of the lending of recipient agencies, the instability of total lending would be less than that of link aid alone.

39. It is further reasoned that, although the volume of SDR allocations may be expected to fluctuate, it is not likely to fall to negligible levels very often, especially since some annual growth in the volume of SDRs would be desirable in order to enhance the role of the collectively determined component of international monetary reserves. It may therefore be possible to make provision for the proportion of linked SDRs to vary with the volume of SDR allocations in a manner which would partially stabilize the volume of link aid, without altering the volume of SDR creation.

(f) *Would the link increase development assistance?*

40. It has been argued that the link would not result in an increase in the flow of development assistance, as link-financed aid would be matched by cutbacks in other forms of assistance. The real constraint on aid levels, it is pointed out, is the will to provide more resources rather than the availability of suitable channels for doing so.

41. Advocates of the link concede that no country can be induced to provide additional aid through the link against its will. It is suggested, however, that countries that are on general grounds of principle in favour of expanding aid programmes are sometimes deterred from doing so by budgetary and balance-of-payments considerations. The link would relax the budgetary constraints and would harness the improvement in the reserve positions of countries resulting from SDR allocations for the provision of more assistance.

(g) *Should aid be "debudgetized"?*

42. The suggestion has been made that the correct way to finance assistance is by taxation, and that the exclusion from the budget of public expenditure on development assistance would constitute fiscal irresponsibility. Otherwise, it is argued, the link would be a subterfuge to hide the real burden of aid from legislators and the public.

43. Supporters of the link have pointed out that there are many instances in which Governments have decided for various reasons to remove certain expenditure programmes from the budget without in any way wishing to relax their control over aggregate demand—a control which can be exercised by monetary as well as by fiscal means. Moreover, since the adoption of a link would be subject to legislative sanction and review, the link cannot be regarded as being intended to bypass public control. On this view, it is rather a question of shifting from one kind of public control to another.

44. It may also be observed that inclusion of an aid programme in the budget does not necessarily mean that exactly offsetting taxes are levied to release the requisite real resources. The budget as a whole may be balanced or unbalanced, according to the requirements of over-all economic management; and these requirements do not depend on whether aid is included in the budget or excluded from it. A more important feature of the inclusion of aid programmes in the budget is that such programmes have to compete for priority with other expen-

diture programmes, domestic and foreign. If, therefore, debudgetization of an aid programme were to take place in a particular country, the reason might well be the desire of the legislature concerned to assign priority to that programme without having to undertake invidious comparisons with domestic programmes. The requisite real resources would then be released, as noted above, in the process of the over-all management of demand and supply for the economy as a whole.

(h) *Would the burden of link aid be shared equitably?*

45. If donor countries were to "link" the same percentage of their SDR allocations, the financial burden of providing link aid would be determined by the size of IMF quotas. This might be considered inequitable, as there is a considerable disparity between the relative size of IMF quotas and the relative GNPs of countries, and it is the latter which have been generally accepted as providing the appropriate criterion for burden-sharing. Furthermore, the disproportions that would result from link aid would not offset, but in some cases might accentuate, the existing disparities in the aid-giving efforts of donor countries, as measured by the ratios of their development assistance to their respective GNPs.

46. It has also been suggested that the burden of meeting the demand for the goods and services generated by link aid would fall primarily on countries in payments surplus, rather than those in deficit. Consequently, the link would serve to accentuate the inequities created by payments imbalances.

47. Proponents of the link have argued that IMF quotas would not be an inequitable basis for distributing link aid since the rise in aid-giving capacity which results from the allocation of SDRs is itself distributed according to IMF quotas. Moreover, the link would facilitate the efforts of countries to raise their official development assistance ratios.

48. As far as the origin of the necessary goods and services is concerned, there is no difference between the operation of the link and that of any other kind of additional untied assistance: in all such cases the distribution of orders would be determined by the relative competitiveness of countries in meeting the demand for development goods generated thereby. In so far as any aggravation of payments imbalances might ensue, the remedy should be sought in the normal processes of adjustment in external payments, rather than by reducing the volume of assistance.

(i) *What form should a link take?*

49. The proposed schemes involving contributions of SDRs to IDA or the regional development banks would, as previously noted, necessitate amendment of the Articles of Agreement of IMF, whereas the "non-organic" link would not require any such changes. Inasmuch as the renegotiation of the Articles of Agreement would take time, and might encounter difficulties, the "non-organic" link might, from this standpoint, be preferable.

50. On the other hand, an "organic" link would be more direct, and might, for this reason, be more desirable. It has been suggested, moreover, that an "organic" link

would be more effective, at least in some countries, in easing the budgetary difficulties in the way of increasing assistance.

51. In reviewing this issue, the Experts concluded:

We have considered whether we should, at this time, propose a specific method by which such a link should be established. We are convinced that there are several methods which would be sound from a technical point of view. We have deliberately refrained from choosing among them. Once there is agreement in principle on the desirability of a link, Governments will wish to choose the most convenient way of establishing it, and this will involve broad issues of policy that go beyond the scope of this report.²⁴

(j) *Would the link be premature at the present time?*

52. It has been suggested that it would be premature to introduce the link at the present time, and that such an innovation should be postponed until the new reserve asset has been fully and firmly established in the international monetary system. It is felt that such a far-reaching reform could create misgivings about SDRs and endanger their unqualified acceptance.

53. Supporters of the link have agreed that it is of prime and overriding importance to ensure the proper functioning of SDRs, and that nothing should be done to interfere with the achievement of this objective. Nevertheless, in their view, the time is now ripe to give serious consideration to the link and such consideration would not involve any danger for the SDR system. They note that the Managing-Director of IMF in his opening address to the 1970 Joint Annual Meeting of the International Monetary Fund and the IBRD group stated:

In my judgement, the experience up to now with the operation of the Special Drawing Rights facility has been highly successful, and it can now be stated that the SDR has become established as a reserve asset.²⁵

54. It has also to be borne in mind that, even if agreement on principle were reached in the near future, the process of determining the precise terms of a link might necessitate prolonged negotiation. Moreover, if the link were of a type requiring amendment to the Articles of Agreement of IMF, experience with previous amendments suggests that the process of negotiation and ratification might well take several years. In the circumstances,

²⁴ See *International monetary reform and co-operation for development: report of the Expert Group on International Monetary Issues*, para. 40.

²⁵ See IMF, *Summary Proceedings of the Twenty-fifth Annual Meeting of the Board of Governors, September 1970* (Washington, D.C.), p. 17.

negotiations on the principle of the link, even if initiated immediately, would not affect the operation of the system of SDRs for some considerable time.

ANNEXES

ANNEX I

Excerpt from the communiqué of the 1970 meeting of Commonwealth Finance Ministers

An excerpt from the communiqué issued at the conclusion of the 1970 meeting of Commonwealth Finance Ministers, held at Nicosia on 17 and 18 September 1970, which deals with the link, is reproduced below.

"Link between Special Drawing Rights and development finance"

"Ministers discussed the possibility of linking Special Drawing Rights (SDRs) to development finance. They were encouraged by the first six months' experience of the working of SDRs which indicated satisfactory progress towards the establishment of SDRs as a reserve asset on an equal basis with other assets. They agreed, however, that the SDR system would need to be firmly established before there could be any link with development finance. Ministers also agreed that the next occasion when the international community ought seriously to consider the link will be in 1972 when consideration is to be given within the IMF (International Monetary Fund) to the next round of SDR allocations. They accepted that the IMF members ought to be adequately prepared for this consideration and that to this end the Executive Board of the Fund should be requested to undertake a study of the question in good time so that the results are available well before the time when decisions must be taken in 1972."

ANNEX II

Excerpt from the communiqué of the 1971 meeting of Commonwealth Finance Ministers

An excerpt from the communiqué issued at the conclusion of the 1971 meeting of Commonwealth Finance Ministers, held in the Bahamas on 23 and 24 September 1971, is reproduced below.

"Special Drawing Rights and Development Finance"

"Ministers considered the papers prepared by the Governments of Jamaica and Ceylon on the proposal for a link and expressed gratification that the suggestion made by them in 1970 had contributed to studies being undertaken by the IMF. They expressed the hope that these studies would be completed as early as possible and attached importance to the results of the studies becoming available well before the time when decisions must be taken in 1972. Ministers proposed that the studies should take note of any proposals which would involve a change in the use of Special Drawing Rights as a reserve asset. They noted that since the situation has now arisen in which the entire structure of the international monetary system will have to come under fundamental review, the possibility of providing more directly in any reform of this system for an automatic transfer of resources to developing countries should be considered."

THE OUTFLOW OF FINANCIAL RESOURCES FROM DEVELOPING COUNTRIES

Note by the UNCTAD secretariat *

[Original text: English]

Introduction

1. The purpose of this note is to assess the over-all magnitude of outflows of financial resources from developing countries, and of the two main components of that outflow, namely payments on account of amortization and interest on public debt, and profits on private direct investments. An estimation of outflows of indigenous capital has not been made, owing to the paucity of information about the size of this outflow.¹

2. Various sources of data exist concerning financial outflows resulting from contractual debt and foreign capital investments in developing countries. These sources vary in their coverage and in their breakdown in terms of items and countries. Consequently, it has been found necessary to use various sources in assessing the respective flows.

I. The over-all outflow of financial resources

3. The Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) reports gross and net capital inflows, official and private, to developing countries (including European recipients) from DAC member countries, and reverse flows of interest payments.² Interest and amortization payments obtained therefrom, taken together with income payments on account of private direct investment as reported by the International Monetary Fund (IMF),³ give a measure of the over-all outflow of financial resources from developing countries to DAC member countries. Multilateral institutions report both gross disbursements to developing countries and receipts from the latter on account of interest and amortization. However, estimates of service payments on indebtedness to socialist countries are not available.

4. On the basis of the data from these sources, it is estimated that outflows on account of interest and amortization payments and profits from developing countries⁴

to DAC member countries and multilateral institutions amounted to approximately \$11 billion in 1969. Of this sum, slightly more than one half consisted of payments on account of interest and amortization, profits accounting for the remainder. Inflows in that year were of the order of \$18 billion. Consequently, a net transfer of resources of around \$7 billion took place.⁵

II. Service payments on public debt

5. The volume of debt service on account of public debt is best estimated on the basis of data published by the International Bank for Reconstruction and Development (IBRD), which, unlike the data published by the DAC, permit an analysis to be made on a regional basis, as well as in aggregate. Furthermore, the IBRD definition of public debt⁶ includes all debts considered as public in the recipient country, whereas the DAC definition of official flows excludes loans from countries not members of DAC, and loans from private sources in DAC member countries to the public sector in developing countries.

6. It is estimated that service payments on the public debt of developing countries as a whole reached approximately \$5 billion in 1969, from a level of \$3.4 billion in 1965 (see table 1). All regions participated in this increase, but payments by Asia and the Middle East rose relatively more rapidly and those by Latin America more moderately.

7. The magnitude of such outflows had a significant impact on the volume of the net transfer of resources generated by fresh lending to the public sector. It can be seen from table 1 that, while the volume of gross capital inflows increased from \$8.8 billion in 1965 to \$10.2 billion in 1969, the net transfer of resources declined in that period from \$5.4 billion to \$5.2 billion.

8. In the same period, the debt service of developing countries rose from 39 per cent of the new inflow to 49 per cent (see table 2). There were substantial inter-regional differences, however, in the level of this ratio, and in its movements. The ratio for Africa and Asia rose, that for

* The text of this note, which is a revised version of document TD/B/C.3/92 and Corr. 1, was circulated to the Conference as document TD/118/Supp.5, dated 20 December 1971.

¹ For rough estimates of flows from developing countries to the Euro-dollar and Euro-bond markets and to selected developed countries in 1967, see "The outflow of financial resources from developing countries: report by the UNCTAD secretariat" (TD/B/C.3/73 and Corr.1 and 2).

² OECD, *Development Assistance, 1970 Review* (Paris, 1970).

³ IMF, *Balance of Payments Yearbook*, various issues.

⁴ Figures in this note include European recipients, since DAC does not provide separate estimates of debt service from these countries.

⁵ Net transfer of financial resources is defined as the difference between total gross inflows of capital and payments of interest, amortization and profits. According to standard balance-of-payments procedure, undistributed earnings in foreign branches and subsidiaries accruing to non-residents are included under the items gross inflow of capital and payments of profits.

⁶ The IBRD defines external public debt as "all debt (including private debt) that is repayable to external creditors in foreign currency with an original or extended maturity of more than one year, and that is a direct obligation of, or has repayment guaranteed by, the central or local government, a political subdivision or agency of either, or an autonomous public body, in the debtor country".

TABLE 1

**External resource flows and service payments on external public and publicly guaranteed debt,
80 developing countries**

(\$U.S. million)

Region *	1965	1966	1967	1968	1969
Africa					
Gross flow	1 940	1 609	1 669	1 505	1 540
Debt service	468	480	476	601	725
Net transfer	1 472	1 129	1 193	904	815
Asia					
Gross flow	3 047	2 832	3 563	3 490	3 324
Debt service	540	653	771	826	1 054
Net transfer	2 507	2 179	2 792	2 664	2 270
Middle East					
Gross flow	597	564	762	1 046	837
Debt service	247	278	241	364	475
Net transfer	350	286	521	682	362
Western Hemisphere					
Gross flow	2 521	2 545	3 002	3 373	3 487
Debt service	1 721	1 934	2 050	2 240	2 182
Net transfer	800	611	952	1 133	1 305
Total above regions					
Gross flow	8 105	7 550	8 995	9 413	9 188
Debt service	2 976	3 346	3 538	4 031	4 436
Net transfer	5 129	4 204	5 458	5 383	4 752
Total, 80 developing countries (above regions plus Southern Europe)					
Gross flow	8 774	8 355	9 788	10 324	10 153
Debt service	3 416	3 787	3 978	4 528	4 968
Net transfer	5 358	4 568	5 810	5 796	5 185

Source: IBRD-IDA, *Annual Report, 1971*, statistical annex, table 9.

* Covering the following countries:

Africa: Botswana, Burundi, Cameroon, Central African Republic, Chad, Dahomey, Egypt, Ethiopia, Gabon, Ghana, Guinea, Ivory Coast, Kenya, Lesotho, Liberia, Malagasy Republic, Malawi, Mali, Mauritania, Mauritius, Morocco, Niger, Nigeria, Rhodesia, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Swaziland, United Republic of Tanzania, Togo, Tunisia, Uganda, Upper Volta, Zaire, Zambia, plus the East African Community.

Asia: Afghanistan, Ceylon, India, Indonesia, Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand.

Middle East: Iran, Iraq, Israel, Jordan, Syria.

Western Hemisphere: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela.

Southern Europe: Cyprus, Greece, Malta, Spain, Turkey, Yugoslavia.

TABLE 2

**Service payments on external public debt as percentage
of gross public inflows, 1965-1969**

(Percentages)

Region *	1965	1966	1967	1968	1969
Africa	24.1	29.8	28.5	39.9	47.1
Asia	17.7	23.1	21.6	23.7	31.7
Middle East	41.4	49.3	31.6	34.8	56.7
Western Hemisphere	68.3	76.0	68.3	66.4	62.6
Total above regions	36.7	44.3	39.3	42.8	48.8
Total including Southern Europe	38.9	45.3	40.6	43.9	48.9

Source: Table 1.

* For country coverage of regions, see table 1.

TABLE 3
Service payments on external public debt as percentage
of exports of goods and services, ^a 1965-1969
(Percentages)

Region ^b	1965	1966	1967	1968	1969
Africa	7.3	6.9	7.0	8.3	8.7
Asia	6.0	6.7	7.5	7.2	8.2
Middle East	7.4	7.6	6.2	8.0	9.3
Western Hemisphere	13.1	13.8	14.4	14.6	12.9
Total above regions	9.3	9.8	10.1	10.4	10.3
Total including Southern Europe	9.1	9.3	9.5	9.9	9.6

Source: UNCTAD secretariat, based on IBRD-IDA *Annual Report*, 1971, and IMF, *Balance of Payments Yearbook*, various issues.

^a For several countries for which data on exports of goods and services are not available, estimates relating to exports of goods only were taken.

^b For country coverage of regions, see table I. Africa and totals shown above exclude Liberia.

Latin America fell, while for the Middle East the ratio fluctuated widely with no perceptible trend. The level of the ratio for Latin America was almost three times that for Asia, with Africa and the Middle East in an intermediate position. The relatively high level of Latin America's ratio reflects the comparatively large share of suppliers' credits in new lending to that region.

9. An alternative indicator of the relative magnitude of service payments is the ratio of such payments to export receipts. This ratio points to the relationship between debt service obligations and the supply of foreign exchange available to finance imports. It can be seen from table 3 that for developing countries as a whole this ratio rose moderately over the period and that it registered a marked rise for Africa, Asia and the Middle East. For Latin America, however, there was no clear movement in the ratio.

III. The outflow of profits

10. Total payments of income from foreign private investment increased from a level of \$3.5 billion in 1965 to a little under \$5.4 billion in 1969. Foreign private investment generated a net outflow of resources of \$320 million in 1965 and \$1.6 billion in 1969.⁷

11. Since much of this outflow resulted from investment in the petroleum sector, a grouping of developing

⁷ The above figures for net outflow are derived from flows on account of bilateral portfolio investment, direct investment including capital repatriation and profits. The first two items refer to private flows to all developing countries, including Southern Europe, while estimates of profits relate to selected countries for which data are available as shown in table 4.

TABLE 4
Outflow of profit ^a
(\$U.S. million)

Region ^b	1965	1966	1967	1968	1969 ^c
Africa	505	665	614	870	870
Asia	268	248	299	284	360
Middle East	1 234	1 475	1 525	1 797	1 960
Western Hemisphere	1 442	1 659	1 784	1 984	2 090
Total above regions	3 449	4 047	4 222	4 935	5 280
Total including Southern Europe	3 489	4 095	4 286	5 006	5 380
Oil-exporting countries	2 326	2 641	2 670	3 213	3 350
Non-oil-exporting countries	1 163	1 454	1 616	1 792	2 030

Source: IMF, *Balance of Payments Yearbook*, various volumes.

^a Referring to gross payments of direct investment income, debit entry item 6.1 of IMF Balance of Payments standard presentation.

^b Covering the following countries:

Africa: Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Libyan Arab Republic, Malawi, Mali, Mauritius, Morocco, Nigeria, Sierra Leone, Somalia, Sudan, United Republic of Tanzania, Togo, Tunisia, Uganda, Zaire, Zambia.

Asia: Burma, Ceylon, India, Indonesia, Khmer Republic, Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand, Republic of Viet-Nam.

Middle East: Cyprus, Iran, Iraq, Israel, Jordan, Saudi Arabia, Syria.

Western Hemisphere: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Surinam, Trinidad and Tobago, Uruguay, Venezuela.

Southern Europe: Greece, Malta, Spain, Turkey, Yugoslavia.

Oil-exporting countries: Iran, Iraq, Libyan Arab Republic, Nigeria, Saudi Arabia, Trinidad and Tobago and Venezuela.

^c For several countries not reporting in 1969, figures refer to rough estimates by UNCTAD secretariat.

TABLE 5

Outflow of profits as percentage of exports of goods and services ^a
(Percentages)

Region ^b	1965	1966	1967	1968	1969
Total, all regions	8.8	9.4	9.5	10.1	9.6
Africa	7.8	9.2	8.5	10.5	8.9
Asia	2.8	2.4	2.7	2.3	2.7
Middle East	25.9	27.0	26.5	26.9	26.8
Western Hemisphere	10.9	11.7	12.4	12.8	12.2
Southern Europe	0.7	0.8	1.0	1.0	1.2
Oil-exporting countries	27.7	28.9	27.8	29.3	27.7
Non-oil-exporting countries	3.8	4.2	4.5	4.6	4.6

Source: IMF, *Balance of Payments Yearbook*, various volumes.

^a For several countries for which data on exports of goods and services are not available, estimates refer to exports of goods only.

^b For country coverage of regions, see table 4.

countries into oil exporters and others is warranted.⁸ It is estimated that profits in oil-exporting countries were 67 per cent of the total in 1965 and increased at an annual rate of 9.5 per cent between the years 1965 and 1969. Profits in other countries grew at a rate of 15 per cent in those years (see table 4).

12. As can be seen from table 4, there were substantial differences in the regional shares of the total outflow. Latin America, with approximately 40 per cent of the total, and the Middle East, with 36 per cent, accounted for the bulk of profits. The growth of profits was fastest in

Africa (14.6 per cent per annum) and slowest in Asia (under 8 per cent). These differing rates of increase did not, however, change regional shares to any significant degree.

13. For the developing countries as a whole, the ratio of profits to export earnings rose from 8.8 per cent in 1965 to 9.6 per cent in 1969 (see table 5). This reflected increases in the ratios of the non-oil exporters in Africa, Latin America and Southern Europe. On the other hand, the ratios for Asia and oil-exporting countries did not show a clear trend.

14. Table 6 shows profit outflows as a percentage of inflows of direct investment. In Asia, the ratio fell during the period shown. In other regions and groups of countries there were marked fluctuations owing to abrupt changes in new investment in particular years.

TABLE 6

Outflow of profits as percentage of new direct private investment ^a
(Percentages)

Region ^b	1965	1966	1967	1968	1969
Total, non-oil-exporting countries	101	122	149	148	128
of which:					
Africa	66	123	139	171	112
Asia	342	343	311	232	232
Middle East	64	81	875	241	111
Western Hemisphere	101	126	163	156	136
Southern Europe	26	27	30	40	41
Oil-exporting countries	442	760	928	958	679

Source: IMF, *Balance of Payments Yearbook*, various issues.

^a "New direct private investment" refers to credit item 11 of IMF Balance of Payments standard presentation.

^b Covering the following countries:

Africa: Egypt, Ethiopia, Ivory Coast, Kenya, Libyan Arab Republic, Malawi, Mauritius, Morocco, Nigeria, Sierra Leone, Somalia, Sudan, United Republic of Tanzania, Tunisia and Zaire.

Asia: Burma, Ceylon, India, Indonesia, Khmer Republic, Republic of Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand, Republic of Viet-Nam.

Middle East: Cyprus, Iran, Iraq, Israel, Jordan and Saudi Arabia.

Western Hemisphere: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Surinam, Trinidad and Tobago, Uruguay and Venezuela.

Southern Europe: Greece, Malta, Spain, Turkey and Yugoslavia.

Oil-exporting countries: Iran, Iraq, Libyan Arab Republic, Nigeria, Saudi Arabia, Trinidad and Tobago and Venezuela.

⁸ It should be borne in mind that profits in the petroleum industry are calculated on the basis of "posted prices" which may not reflect the actual price of petroleum; consequently, the estimates of profits may be subject to error.

IV. Conclusion

15. No estimates of the outflow of financial resources from developing countries are available on a comprehensive basis. Consequently, no thorough analysis of the question can be made on the basis of information currently available from the DAC, the IMF and the IBRD.

16. Nevertheless, published figures show that service payments on account of public indebtedness rose substantially from \$3.4 billion in 1965 to \$5 billion in 1969, and were accompanied by a reduction in the net transfer of resources from \$5.4 billion to \$5.2 billion between those years. The importance of these outflows for developing countries, and the outlook for the future, are studied in a report prepared by the UNCTAD secretariat.⁹

17. Profit outflows from developing countries also rose to a marked degree, from \$3.5 billion in 1965 to \$5.4 billion in 1969. The contribution of foreign private investment to the net transfer of financial resources to developing countries was, therefore, negative and of the order of minus \$1.6 billion in 1969. These figures must, however, be interpreted with caution since they do not reflect the total contribution, positive or negative, that foreign direct investment makes to the balance of payments and to output in the host countries.¹⁰

⁹ See *Debt problem of developing countries* (United Nations publication, Sales No. E.72.II.D.12, chap. II).

¹⁰ The total contribution would include direct and indirect effects on imports and exports of goods and services. On this question, see the report prepared by A. K. Sen for the UNCTAD secretariat, entitled "Methods of evaluating the economic effects of private foreign investment" (TD/B/C.3/94/Add.1 and Add.1/Corr.1).

18. Combining the above estimates, it is found that in 1969 the outflow of resources from developing countries totalled \$10.4 billion, while the net transfer of resources amounted to \$3.7 billion. On the other hand, as shown in paragraph 4, estimates derived from data published by the DAC and IMF reveal an outflow of \$11.4 billion and a net transfer of resources of \$7 billion for 1969. These discrepancies may be explained by the fact that the DAC data cover a larger number of recipients of assistance,¹¹ and include private flows not guaranteed in the borrower's country.

19. As noted earlier, no reliable data are available concerning the outflow of indigenous capital from developing countries, although the flow is thought to be fairly large. As reported previously to the Committee on Invisibles and Financing related to Trade,¹² certain aspects of this outflow were taken up by the UNCTAD secretariat with the *ad hoc* Group of Experts on Tax Treaties at its April 1970 session.¹³ The *ad hoc* Group examined this matter further at its third session (25 October to 5 November 1971).

¹¹ For example, a substantial part of the grants made by DAC member countries was received by areas not included in the IBRD country coverage, such as overseas departments of European countries. Thus, while the DAC reported a level of grants in 1965 of \$3.4 billion, the IBRD figures show a level of \$2 billion in that year.

¹² See addendum to UNCTAD secretariat report entitled "The outflow of financial resources from the developing countries" (TD/B/C.3/73 and Add.1).

¹³ For report of the *ad hoc* Group on this matter, see *Tax Treaties between Developed and Developing Countries, Second Report* (United Nations publication, Sales No. E.71.XVI.2), paras. 115-137.

PRIVATE FOREIGN INVESTMENT IN ITS RELATIONSHIP TO DEVELOPMENT

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report was circulated to the Conference as document TD/I34, dated 17 November 1971. It will also be issued separately as a United Nations publication.

Introduction and summary

1. In recent years private foreign investment has played a substantial part in transferring capital and skills to the developing countries. But this is not necessarily the same thing as contributing to development. There are wide differences of opinion on the impact private foreign investment has had in the past, and on the part it might play in the future.

2. The broad object of this report is to identify the main problems in this field, and to give some indication of the attitudes towards them that exist in developed and developing countries. In some cases these attitudes are close together; in others they are far apart. Sometimes the kind of solutions that should be adopted seem fairly clear; sometimes they are hard to find. Usually there is at least agreement on what the problems are; but occasionally there is little common ground even on this.

3. The report has five chapters. Chapter I discusses the costs and benefits of private foreign investment; chapter II considers the alternatives to such investment; chapter III covers the question of the incentives to investment offered by developing countries; in chapter IV the

problems of the transfer of ownership are discussed; and chapter V considers the framework within which private foreign investment must operate.

4. The question whether a particular private foreign investment project is socially profitable for the host country, and if so to what extent, cannot be determined *a priori* but requires careful analytical investigation in the circumstances of each case. Projects have to be reviewed in the light of their consistency with the development objectives of the host country, including such factors as the growth and distribution of income, the expansion of employment opportunities, and the absorption of new skills and technology. In countries experiencing foreign exchange stringency special attention has to be paid to the impact of projects on the balance of payments.

5. Any evaluation of private foreign investment requires examination of the available alternatives, including production by domestic enterprise, the possibility of importing the goods in question, and in some cases doing without the goods in part or in whole. There are also various forms of foreign participation other than wholly foreign-owned direct investment, including joint ventures and industrial co-operation and licensing agreements.

There is no formula that is applicable to each and every case, and the most advantageous approach will depend on circumstances.

6. If agreement is to be reached between host countries and foreign companies and is to remain satisfactory to both sides, it must be characterized by stability and flexibility. Host countries are entitled to establish the ground rules for foreign investment, and should do so in a manner that makes it quite clear to foreign investors where they stand on such questions as whether there are any sectors of the economy in which foreign investment is not welcome; what restrictions will be applied to transfers of profit and repatriation of capital; what rates of taxation will be levied; what degree of local participation in ownership and control is envisaged, either immediately or in future; and what may be required by way of employment of local personnel and use of locally produced inputs. Once the framework has been established, reasonable stability is necessary if investments are to operate as planned and the legitimate expectations of foreign companies are to be fulfilled. Stability should not, of course, be confused with rigidity, and it would be unrealistic to expect rules to remain immutable. But while Governments are free to change the ground rules affecting private foreign investment, they have to weigh the gains achieved thereby in relation to the prospects for any future collaboration with private foreign capital that they may have in mind. In these as in other respects, what is necessary is that Governments and foreign investors should have regard to each others' legitimate interests.

7. There is a need for more exchange of information concerning the experience of various countries in dealing with foreign investors. In many cases, countries have difficulty in reacting to specific proposals for foreign investment, or to requests by foreign companies for particular conditions to be applied regarding profit remittances, taxation, local borrowing, etc., because they have no basis of experience from which to judge what course of action might be reasonable and mutually satisfactory in the particular circumstances of each case. There is therefore a case for establishing a clearing-house of information on the policies and practices of countries in the matter of private foreign investment as well as on the objectives and requirements of foreign investors considering whether to invest in particular developing countries.

Chapter I

Assessing the costs and benefits of private foreign investment

A. THE POSSIBILITY OF DIVERGENT INTERESTS

8. Nowadays private foreign investment usually takes the form of direct investment in a foreign country by a firm whose headquarters, and often main activities, are situated in another country. While there may be intermediate objectives, such as maintaining the share of the local market and keeping out other foreign competitors, the fundamental aim of such investment appears to be to earn what is regarded as a satisfactory rate of profit. If investment is to be undertaken in one place rather than another, it is because the rate of return (after allowing for risk) looks like being higher.

9. While profits provide the main incentive of the firm, the principal objective of the developing country in which it may invest will probably be, in the broadest sense, the development of its economy. Within the framework of this broad objective the developing country will be seeking to achieve many particular objectives: to raise output, to increase employment, to strengthen the balance of payments, to improve the distribution of income, and so on.

10. Profitable investment by a foreign firm may help to achieve some of these objectives, but may hamper the achievement of others. Even within developed countries, the activities of private firms can conflict with broad economic and social objectives, for example in the fields of monopoly policy, regional development and pollution. The possibility of a divergence of private and social interests is even greater in a developing country, where the framework of rules governing the operation of enterprise is usually less well-defined. Governments often less well-equipped to evaluate and influence the company's activities, trade unions less powerful, and organized consumer interests usually non-existent.

11. The basic problem, then, is that the interests of foreign companies and host Governments are not necessarily the same. A foreign company, for example, may take the view that its activities must be good for the developing country, on the grounds that they have some identifiable positive effect on output or exports, without appreciating the effects of these activities in other directions, for example in distorting income structures or destroying local competitors. On the other hand, the country may fail to realize that by insisting that a foreign investment incorporate certain features which directly appear to assist development—for example a high minimum use of local inputs—it may be adversely affecting the investment's efficiency enough to throw doubt on its profitability, and hence on the basic reason for undertaking it. In some cases insistence on the incorporation of local inputs may change the whole character of a project by making it unprofitable to export and may even make it necessary to provide additional protection for the production in question.

12. If private foreign investment is to play a useful role in development in the future, the possibility of divergent interests between company and country should be explicitly recognized, and should form a background to consideration by both sides of particular proposals.

B. BENEFITS AND COSTS

13. The benefits which can be brought to a developing country by private foreign investment, and the advanced technology and wide range of managerial and other skills associated with it, are numerous and important. They include increased production and incomes, higher employment, extra exports, greater government revenue—improvements, in short, in most of the indices by which economic performance is conventionally judged. For this reason developed countries are inclined to take the view that private foreign investment is of great value to developing countries, and are surprised that this view does not always seem to be shared by the developing countries themselves.

14. From the standpoint of the developing countries, the true value of the benefits of private foreign investment cannot be assessed in isolation, but only by reference to how far they help to promote national economic objectives. In this respect, a number of criticisms of the effects of private foreign investment have been put forward.

15. One such criticism fastens on the nature of the goods produced. These may be luxury goods, bought by only a tiny fraction of the population; or they may be mass-consumption goods catering for stimulated rather than real needs. Quite often, they are goods which are only assembled, and not really manufactured locally, so that the value added by local production is low, the associated imports high, and the price of the goods—if the industry has been afforded protection—high as well. In some instances the goods produced may have little connexion with the local economy: they can thus constitute a new type of “enclave” investment, where all the important linkages run outside the country, and little stimulus is provided to local industry either as suppliers of the firm’s inputs or as processors of its output. In all these cases the contribution the investment makes to the country’s development may be small.

16. Another criticism focuses on the techniques of production employed. Foreign firms, it is said, use much the same capital-intensive techniques in developing countries as they use at home, despite the very much greater availability of labour (albeit unskilled labour) in relation to capital. As a result, imports of capital equipment are higher than they need be; the impact on employment is lower than it could be; and the high wages paid to the small number of local workers trained and employed has an adverse effect on the distribution of income, which sets up a variety of social strains, particularly between the employed and the unemployed, and between those in the cities and those in the rural areas.

17. The doubtful nature of some of the benefits of foreign investment merges into its more obvious costs. The inflow of capital may be a benefit, but the subsequent outflow of profits and dividends is a cost, and the rate of profit earned on the investment may be so high as to make it a very substantial cost. Again, the production of new foreign subsidiaries may be a benefit, but if it displaces existing production from local firms this is an offsetting cost, as is any consequent loss of employment in local enterprises. Similarly, extra exports may require higher imports of materials or components. And in some cases, where the foreign firm does not create new assets, but merely takes over existing locally-owned ones, the net benefits may be particularly hard to discern, except perhaps where access to new external markets is opened up thereby.

18. However, it can be argued that with the help of modern investment appraisal techniques, costs of the kind outlined above can be compared with benefits, for any particular investment project, and a rational decision made about whether the project is in the developing country’s interests. In this way, it might be suggested, only private foreign investment whose benefits to the developing country outweighed its costs would be allowed in.

19. It might be answered, however, that the true costs of private foreign investment to a developing country are

not all easy to identify. When, in the pursuit of quick private profit, an oil well or copper mine is worked too rapidly, there is a permanent, unnecessary loss to the country which may not become apparent until later. Even more difficult to assess is the extent to which the development of local enterprise may be overshadowed and stifled by the presence of foreign-owned firms. The know-how and prestige acquired from its parent, it has been argued, can give the foreign firm many advantages: it can attract local funds, it can pay more to skilled labour, it is better at spotting or developing new local markets. The local firm finds both its inputs and its markets pre-empted, and never has a chance to develop.

20. Although a formidable list can thus be compiled of the ways in which some of the benefits of private foreign investment may seem doubtful, and some of the costs onerous, it can be argued that such a list takes insufficient account of the difficulties facing foreign firms in developing countries, and puts too much emphasis on costs which often do not materialize. Foreign investors contend that the national economic objectives of a developing country are not always clearly-defined, and whether the goods a firm produces, and the techniques by which it produces them, are in the interests of the country or not may be the subject of conflicting opinions within the developing country itself. Similarly, what may seem a high rate of profit to the country may seem low to foreign investors, who take the view that substantial risks are involved in investing in developing countries. Another point frequently made is that the question whether profits are unduly high or not cannot be settled by simple comparisons between the annual inflow of capital and the annual outflow of profits and dividends; for, while the inflow represents one year’s investment, the outflow represents the remittance of profits on the cumulated value of past investment. Where the outflow is bigger than the inflow, it does not necessarily follow that the balance-of-payments effects of private foreign investment are adverse, for such a comparison takes no account of the effects of past investment in increasing exports or substituting home production for imports, let alone of promoting other national objectives such as increasing output and employment.

21. A related point concerns the correct pace of working of oil and mineral deposits. It can be argued, for example, that but for private foreign investment many such deposits would not have been worked, or would not have been worked so early, and that benefits which developing countries have derived would not have accrued to them, or would have accrued later, and thus been less valuable.

22. As for the question of how far local enterprise is stifled by foreign investment, some observers would take the view that although there may be cases where this happens, there are also many cases where the opposite happens: where foreign investment creates a demand for inputs many of which local entrepreneurs find they can supply; where the income it generates increases demand for local services; and where some of the skilled labour it trains becomes available to other employers, thus having a widely diffused effect on local industry. In short, the effect on local industry is in many cases to stimulate rather than to stifle.

C. THE MULTINATIONAL FIRM

23. Most private foreign investment is now carried out by multinational firms, *i.e.*, firms that have subsidiaries or affiliates in many countries, though ultimately they are usually controlled from one country—often the United States of America. Because they tend to operate in growth industries, the share of world output accounted for by multinational firms appears to be increasing fairly rapidly; and some predictions have suggested that over the next few decades the great bulk of world output will come to be accounted for in this way.

24. The increasing power of multinational companies poses new problems—and not only for developing countries: several developed countries, such as Australia, Canada and France have expressed acute concern over the part played by such companies in their economic life. The main problem is that the multinational firm spreads its operations around the world in the way most likely to further its own objectives of profitability and growth, and there is no reason to suppose that this will result in an optimum situation as seen by any particular country in which the firm operates. Company policy regarding operations in particular host countries is determined not by the employment or balance-of-payments needs of these countries, but by a board of directors effectively responsible only to themselves.

25. This basic problem is compounded in the case of many developing countries by the sheer size of some multinational firms in relation to the size of the local economy. And even a local subsidiary may be small compared with its parent company but large by comparison with the economy of the host country. The decisions the firm makes, in its own interests, can have a greater impact on the economy than the decisions the Government makes; and company decisions on transfer prices, the allocation of overheads to different operations, and credit and currency flows can in some cases effectively neutralize government fiscal and monetary policy.

26. Some observers have argued that the advent of the multinational corporation has made the nation-State obsolete. The multinational corporation is the most efficient instrument yet devised, it is contended, for allocating resources on a world basis. If the multinationals were left alone, untrammelled by differential taxation, tariffs, and government interference generally, world income would be maximized. The main effect of attempts on the part of a large number of different countries to coerce the multinationals into taking account of their individual interests is to prevent them from operating at full efficiency, and thus to reduce the benefits available to ordinary people.

27. Many people would regard this view as extreme and unacceptable, if only because it concentrates on the size of world income to the exclusion of its distribution. It can be argued, however, that where the right kind of co-operation is established, certain of the characteristics of multinational companies could be of service to developing countries—their command over capital, their ability to supply managerial and technical skills, their expertise in identifying and expanding markets, particularly export markets, their relatively long time-horizon, and their potential for assisting in the process of regional integration. A problem for developing countries is how far they can

secure these benefits from multinational companies without becoming dominated by them, or permitting their economic development to be distorted.

28. The answer to this problem lies partly in the hands of the developing countries. The more they can agree among themselves on the terms on which they allow multinationals to operate in their territory, the more they are likely to benefit. Regional groupings might form the nucleus of a more extensive consolidation of countervailing power in face of the multinationals—which might be particularly helpful for small countries with little bargaining power by themselves. This would enable developing countries to negotiate better terms on such matters as the protection to be afforded the multinational firm, its policies on transfer prices and the allocation of overheads, its willingness not to invoke pressure from its own Government in disputes with the host Government and its attitude to the participation of national interests, public or private, in ownership and control. Some understanding might also be reached on ways of preventing changes in worldwide production policy from causing adverse effects in particular host countries. Multinationals might themselves benefit from the stronger bargaining position of developing countries, since agreements which give mutual satisfaction are likely to remain in force longer than those which do not.

Chapter II

Alternatives to private foreign investment

29. The benefits that developing countries derive from private foreign investment may be obtainable in other ways which are less costly. The goods which a foreign-owned firm might produce can be imported, or gone without; but assuming they are needed, and are already being imported, the effective alternative is production by a domestic firm.¹

30. While a domestic firm may have certain advantages over a foreign firm, such as greater knowledge of local conditions, it may be at a disadvantage in terms of access to capital, to foreign markets and to managerial and technological know-how. Sometimes it may be able to offset this disadvantage by using simpler techniques which are more appropriate to local factor prices, but in other cases it will need to import its technology from abroad. How far—assuming that it can get the capital in other ways—can a developing country import its technology separately from the equity capital which gives foreign investors control?

31. The simplest way of importing advanced technology is, of course, through the purchase of equipment, and many innovations are available through new and improved versions of well-known types of machinery and components. Moreover, consultancy and engineering contracts may be negotiated with firms that specialize in piecing together components from various industries or enterprises.

¹ The issue of alternatives to private foreign investment is discussed more fully in "Methods for evaluating the economic effects of private foreign investment: report prepared by Prof. Amartya K. Sen" (TD/B/C.3/94/Add.1 and Add.1/Corr.1).

32. Industrial co-operation agreements of the type sometimes negotiated between market-economy countries and socialist countries² provide for the transfer of technology without foreign investor control. So also do licensing agreements. However, these agreements require considerable managerial and technical absorptive capacity on the part of the recipient, and not all developing countries are equally well placed to take advantage of them. Developing countries often have difficulty in discriminating between alternative sources of advanced technology and may be confronted with package deals in which an apparently low cost for a licence is offset by the price charged for required equipment. In any event, many companies like to retain absolute control of their technical processes, and are unwilling to license. Particularly in cases where the technology employed by a firm is advanced and frequently changing, it is difficult to transfer it satisfactorily to another organization over which the firm has little or no control.

33. Other difficulties in transferring technology alone have sometimes been cited. Even if technology could be divorced from capital, it is argued, it cannot easily be divorced from management, which is needed to apply the technology, and to seek out the markets for which the technology is appropriate. There is not much footloose management available, it is claimed: good managers are to be found inside important companies, and will not necessarily be effective if transplanted into another context. Moreover, while it may sometimes be possible to hire management to run an existing organization or a concern making use of well-known technology, it may be more difficult to hire management to establish an investment project involving new industrial techniques; this often requires the combination of aptitudes and resources to be found in large firms.

34. As against this, others would argue that little real attempt has yet been made to organize the transfer of management skills outside the context of direct investment, and that there is plenty of scope for doing so. It is also quite possible for a management contract with a foreign company to be combined with participation in profits by that company, thereby providing an additional incentive to efficient operation. The seconding of managers from public enterprises in developed countries could become an important feature of bilateral or multi-lateral technical assistance programmes. Such assistance should be designed to develop local managerial skills on the scale required.³

Chapter III

Incentives to private foreign investment

35. Developing countries often offer investment incentives to foreign firms. These take many different forms: concessions on direct taxation, amounting in some cases

to several years' tax-holiday; rebates on import duties; free or subsidized use of local services; privileged access to local borrowing facilities; freedom from exchange control restrictions, and so on. The value of such concessions can be very substantial, particularly when developing countries compete with each other in an effort to attract particular investments.

36. Although no one can be sure, many observers doubt whether these concessions have had much effect on the total flow of resources from developed to developing countries. They may have had some influence on the direction of private foreign investment as between one country and another, but even this may have been rather marginal. The main effects may have been to reduce the benefits from foreign investment accruing to developing countries in the form of government revenue; and—since such concessions often give foreign firms an advantage over domestic firms—to stunt the development of local enterprise. Moreover, the smaller the proportion of its profits that a foreign firm pays in local taxation, the more profits it can either repatriate (which is a cost to the balance of payments) or re-invest locally (which increases its participation in the host country).

37. Although every country must be free to operate its system of investment incentives as it sees fit, it has been suggested that it would probably be in the interests of the developing countries themselves to reach a greater measure of agreement on the nature and extent of the tax and other incentives to be offered to foreign investors. Agreement on a regional basis might be a particularly useful way to start, since it is often within a particular region that foreign investors have succeeded in playing off one country against another.

38. The main problem likely to be encountered in attempts to secure agreement among developing countries on investment incentives is that some countries will find it more difficult to scale down their incentives than others. The least developed countries, particularly when they are small and can offer no potentially large internal market, are often unattractive to foreign private investors; at the same time, a shortage of local capital and skilled manpower may make foreign investment particularly necessary to them. It is difficult for countries in this position to take the more detached attitude to private foreign investment that is possible for more advanced developing countries with larger populations or per capita incomes. The difficulty of agreeing on common investment incentives may become apparent when countries of both kinds join together in a regional grouping. And, even where general agreement is reached by a group of countries, cases may arise—putting a strain on such an agreement—of a country deciding that a particular investment is so important to its development strategy that it must be secured.

39. A related question concerns the attitude of developed countries to the taxation of income from their overseas investments. Progress has been made in recent years on such matters as double-taxation agreements, which prevent such income being taxed twice;⁴ but in some cases

² See "A research note on industrial co-operation as a factor in the growth of east-west European trade", in *Economic Bulletin for Europe*, vol. 21, No. 1 (United Nations publication, Sales No. E.70.II.E.3), pp. 67-88.

³ In connexion with the transfer of technology, see the report by the UNCTAD secretariat entitled "Transfer of technology" (TD/106) (see p. 110 below).

⁴ See *Tax treaties between developed and developing countries, Second report* (United Nations publication, Sales No. E.71.XVI.2).

the problem remains that the tax incentive measures of developing countries are frustrated by the imposition of offsetting taxes by the capital-exporting countries. The Governments of some developed countries appear to take the view that provisions designed to avoid such offsetting taxes should not be negotiated, on the grounds, among others, that they are not consistent with the principle of tax equality as between domestic and foreign investment, and that they are an incentive to competitive tax-cutting by developing countries. Others incline to the view that an unwillingness to negotiate such provisions has the effect of imposing an unwarranted restriction on the freedom of action of developing countries.

Chapter IV

Ownership: co-operation and transfer

A. JOINT VENTURES

40. It has often been suggested that ventures conducted jointly by foreign capital and local interests might help to smooth over many of the problems raised by private foreign investment in developing countries. The foreign firm would benefit, it is argued, by support from local capital, by direct access to local knowledge and expertise, and perhaps from a greater immunity to expropriation or damaging arbitrary action than if it were entirely on its own. Similarly, the host country would have some direct say in the running of the business, which should help to ensure that local requirements were adequately safeguarded, and local savings, as well as local management and technical expertise, would be developed by access to opportunities within the foreign subsidiary.

41. Despite these advantages, joint ventures are not always popular, particularly with foreign investors. Some investors feel that joint ownership brings no advantages, since they themselves have sufficient capital and know-how to set up and run the business on their own, and may, in fact, bring disadvantages. Chief among these are possible limitations on the company's day-to-day freedom of action. Once there are local directors in the boardroom, it is argued, conflicts of interest may arise, and efficient decision-making may become very difficult. Instead of being a unified enterprise, seeking to pursue its legitimate commercial interests within the framework of the ground rules agreed between itself and the host Government, the company may become a battleground for bargaining between opposed and even irreconcilable interests.

42. Many may feel, however, that this account overlooks the fact that conflicts of interest exist between the company and the host country, that these conflicts are bound to emerge from time to time, however carefully the ground rules have been laid down, and that it is far better that they should be capable of discussion and resolution in the company's boardroom than that they should be ignored or suppressed until such time as they are resolved, perhaps much more explosively, outside it. There is a growing body of successful experience with joint ventures, and there is something to be said for fifty-fifty arrangements involving the equal participation of domestic and foreign interests.

43. Although the immediate objective of joint ventures is to enable local investors to participate in owner-

ship and management, developing countries may not be indifferent as to who these investors are. Local directors or shareholders whose sole concern is high dividends or a rapid appreciation of the share price so that they may sell out at a profit are as likely to exacerbate the important problems as to solve them. For this reason there is often a case for joint ventures undertaken between a foreign firm and the host Government, or some public body such as a finance corporation or development bank, rather than one involving local private interests. In this way the State can exercise some direct influence on the company's activities, while at the same time responding with greater speed and understanding to the company's legitimate requirements. It should be recognized that such a solution is not without dangers of its own, in the form of political pressures. But these dangers can be exaggerated and on balance the line of approach offered by joint ventures between foreign enterprise and some kind of domestic public entity seems well worth pursuing.

B. AGREED TRANSFER OF OWNERSHIP

44. The main pressure for transfers of ownership comes from the Governments of developing countries, which wish to see a greater part of national economic life under the control of their own citizens. This desire is often particularly acute in relation to the "commanding heights" of the economy, including such sectors as mineral resources, banking and financial services, public utilities and transport and communications. It is felt that as long as such sectors are under foreign control the country will be hampered in its attempt to pursue its own development objectives, and at the mercy of decisions taken by foreign investors in their own interests.

45. However, transfer from foreign to local ownership is far from costless. The most immediate problem is how the transfer is to be financed. The foreign company will expect to be paid a sum corresponding to the current value of its future earnings. One possibility is for the country to finance this sum out of its foreign exchange reserves—but the sum will usually be too large for that. Another is to finance it in local currency, in the hope that the firm will reinvest in new developments locally—but often the firm will be unwilling to do this. A third possibility is to finance the sum by the issue of government bonds that can be converted into foreign exchange over a period of time—but this combines elements of both the previous disadvantages. Two other solutions have been suggested. One is that transfer should be effected by the Government accepting shares in the company, in lieu of taxes, over a period of years. The disadvantage of this is that the Government would have to forgo its revenue during that period. The other is that some international intermediary (sometimes described as a "divestment corporation") should be established, to supply a form of bridging finance; the intermediary would make immediate payment to the foreign investor, and be reimbursed over a period of time by the Government acquiring the investment. This suggestion is by no means free of drawbacks—notably the very large sums that might need to be available to the intermediary—but it may supply some of the answers.

46. A different aspect of the problem is the effect which the procedures established to transfer ownership and control may have on foreign investment. An example of such procedures is to be found in the Foreign Private Investment Code drawn up by the Andean Group of countries⁵ in December 1970. Under this Code, firms are classified as national, mixed or foreign, according to the extent of local participation in ownership and management. In some sectors, foreign firms newly established after the beginning of 1971 must agree to a progressive sale of shares to local interests, so as to transform them into mixed enterprises within 25-30 years, while existing foreign firms must agree to the same provisions if they want to secure the benefits of the trade liberalization measures agreed by the Group. In other sectors, such as public services, banking, and transport and communications, no new foreign investment is normally to be permitted, and existing foreign firms must rapidly be transformed into national ones. The proceeds of sales of shares to local investors may be repatriated to the home country at the exchange rate in force at the time. Other provisions of the Code include restrictions on the rate of profit that may be remitted, on access to local credit, and on acquisition of local firms by foreign ones. Permission to import technology will be granted only in the absence of restrictive conditions imposed by the foreign firms (for example on associated machinery imports, or the right to export to certain markets). Member of the Group will grant no new investment incentives until a common policy is drawn up; and foreign investors will not be granted more favourable treatment than national ones. In general, the Andean Code is an important example of an effort to satisfy the aspirations of host countries to regulate foreign participation in their economy and to provide, where necessary, for an orderly takeover by national or mixed companies, while creating a definite and comprehensive framework for foreign investors, if they are prepared to conform to the conditions laid down.

47. It is often argued that there may be some risks in establishing provisions for transfer of ownership. One is that an existing company, aware that ownership will soon pass into local hands, and perhaps uncertain whether payment will be adequate, may fail to introduce new technology or develop new markets in the way it would have done had it been assured of continued control; or even fail to maintain its existing assets in sound condition, and exploit its existing position to the full, regardless of the consequences for the future viability of the enterprise. Moreover, the acquisition of foreign companies may lead to the loss of the inflow of technology, or the access to export markets, which had been the main condition of their success.

48. Another risk for a developing country which makes it clear that it expects foreign investment to be transferred to local hands over a period of time is that the foreign investment may fail to appear in the first place: it may

go to other countries—including developed countries—where requirements are less stringent. This is particularly true in the case of multinational companies, which may fear that loss of control of a subsidiary which plays a key role in supplying components to a world-wide integrated organization may bring extensive disruption to its other interests; and it may also apply to firms which are important technological innovators, unwilling to see the use of this technology pass outside their control.

49. It should be borne in mind that the concerns described in the two preceding paragraphs are based on *a priori* considerations rather than concrete evidence. Foreign investors may well attach more importance to the general economic climate and dynamism of a country than to the existence of a requirement for the ultimate transfer of ownership, provided that there is reasonable stability in the application of the relevant rules.

C. COMPULSORY TRANSFER OF OWNERSHIP

50. In cases where a company does not wish to transfer ownership to local interests, and the original agreement contained no understanding that such a transfer should take place, various problems arise when the host country expresses its desire to take the investment over.

51. The most basic problem stems from what can amount to a fundamental difference in attitude between developing countries and private foreign-based companies. The Governments of developing countries generally regard themselves as having absolute sovereignty over all activities within their borders, whether or not these are conducted by foreign nationals or foreign-owned companies. They also consider that the ownership of the soil and of everything that lies beneath it is vested inalienably in the State. Moreover, the State is considered as having the unqualified right to nationalize, and to determine the amount and method of compensation. Private foreign companies, on the other hand, accustomed to operate within the legal and constitutional framework of their own countries, tend to take the view that private property may not be taken away from its owners without the owner's agreement, and in any event not without compensation adjudged adequate by a third party. They also take the view that a contract, once signed, should be honoured unless and until it is renegotiated by voluntary agreement of both sides.

52. In this difference of attitudes there is material for much disagreement, even though renegotiation of agreements at the wish of one party is recognized to be a legitimate occurrence in the developed countries themselves when underlying circumstances change.

53. However, what constitutes a change in the underlying circumstances may itself be the subject of dispute. A company might take the view that a demand for renegotiation of an agreement signed many years ago was acceptable, or at any rate inevitable, but that demand for renegotiation of an agreement concluded within the last

⁵ The Andean Group of countries consists of Bolivia, Chile, Colombia, Ecuador and Peru.

few years was not. This latter situation can, indeed develop into a vicious circle, in which unforeseen government attempts to acquire a greater measure of ownership and control lead companies to ignore longer-term considerations in order to snatch a quick profit—a behaviour which itself increases the Government's determination to acquire control.

54. Even in cases where the company accepts the inevitability of a transfer of its assets to local interests, there is still plenty of room for disagreement about the terms on which this should be done, and in particular about the compensation that should be paid. Even an objective assessment of the value of the installations may be difficult to arrive at, especially if, for example, they constitute part of an integrated multinational organization. But host countries sometimes argue that this valuation should be written down to allow for what they regard as the excessive profits the company has made, or the inadequate taxes it has paid in the past. The company has insisted on making large profits in the past, they contend, because of the risk of its being expropriated without compensation; it can hardly expect, therefore, now that it is being taken over, to get the bonus of full compensation as well. On this argument, there is no lower limit to what the country would regard as adequate compensation; indeed it can be negative.

55. Attempts of various kinds have been made to cope with the situation that arises when a country decides to take over foreign-owned assets and offers compensation which the owners regard as inadequate. One approach is to cut off aid to the country concerned. But many developing countries, particularly in Latin America, regard negotiations about the take-over of foreign-owned firms as strictly a matter between the firms and themselves, and any attempt by the Government of the parent firm to influence the situation is considered to be unacceptable.

56. Another approach has relied on the establishment of an international organization to arbitrate in cases of disagreement. However, this has not been acceptable to all developing countries, particularly those in Latin America, most of which have declined to ratify the Convention on the Recognition and Enforcement of Foreign Arbitral Awards,⁶ and have shown no wish to avail themselves of the services of the International Centre for Settlement of Investment Disputes. These countries take the view that as sovereign Powers it is for them to determine the terms on which foreign-owned assets should be taken over, and that international arbitration machinery is inappropriate.

Chapter V

The framework for private foreign investment

A. SOVEREIGNTY

57. Developing countries which are hosts to private foreign investment take the view that their own sovereignty is absolute, and that such investment must accept the rules laid down by the host Government. They consider that

any dispute which arises between themselves and the foreign-owned company must be settled between these two parties and that the Government of the country in which the parent company is registered has no standing in the matter.

58. In the developed countries a different view is sometimes taken, according to which it is accepted that national companies should have the right to appeal to the good offices of their own Governments in the event of disagreements with host Governments; and that this is one of the functions of international diplomacy. There is no obvious meeting-place between these points of view.

59. On more specific causes of dispute some agreement may be feasible. Where, for example, the laws or policies of the country in which the parent company is registered conflict with the laws or policies of the developing country in which the subsidiary is operating, the subsidiary can conform with the jurisdiction of one sovereign State, but not both. Examples of this kind of conflict in recent years have been United States legislation forbidding United States companies, including their foreign-based subsidiaries, to sell certain goods to certain countries; and requirements that United States subsidiaries overseas remit a certain proportion of their profits in order to strengthen the United States balance of payments. In cases of this kind it should be possible to reach agreement on the basis of formal international agreement on the status of foreign nationals, including foreign-owned companies, operating in other countries: host countries are, of course, likely to insist that final jurisdiction should be theirs.

B. GROUND RULES

60. If a firm is to make a rational assessment of whether it is in its interest to invest in a developing country, it will need realistic information about the conditions under which the investment will operate. Similarly, if a developing country is to make a rational assessment of whether it is likely to derive a net benefit from a proposed investment, it will need information about the effects the investment is expected to have.

61. As far as the developing country is concerned, it is likely to want data on the contribution the investment is expected to make to production, employment, exports, import saving, government revenue, and so on. It may well be concerned with more far-reaching matters, such as the implications of a major concentration of foreign investment for national economic policy and planning, and whether, and at what pace, the investment might come to be managed, controlled and owned by local citizens or institutions.

62. As for the company, it will wish to know of any restrictions on the rate of profit it may achieve, what rate of taxation it will be expected to pay on these profits, to what extent they may be remitted home, under what circumstances the capital investment can be repatriated, whether it will get protection from competitive imports, whether it is permitted to borrow locally, and if so what effect this will have on profit transfers and other remittances, at what rate it will have to step up its employment of local personnel or its use of local materials, and so on.

⁶ United Nations, *Treaty Series*, vol. 330 (1959), No. 4739.

It, too, will be concerned about the circumstances under which there might be a transfer of ownership or control to local interests.

63. Whether or not an investment is made will depend on agreement being reached on points such as these, although various preliminary stages can be helpful. Some countries, for example, have found it useful to make clear that in certain sectors—often including mining, banking, public utilities and transport and communications—foreign investment is not sought after. On the other hand, it might be advantageous for developing countries to indicate, perhaps in their development plans, sectors in which, for example because of the need for advanced technology, private foreign investment would be particularly welcome.

64. But if agreement reached on points such as these is to be, and is to remain, satisfactory to both sides, it must be characterized by two qualities that may appear to be, but are not necessarily, contradictory: stability and flexibility.

65. Stability in the agreement is necessary if investments are to operate as planned and the foreign firm's legitimate expectations are to be fulfilled. Changes in the ground rules after an investment has been made, particularly changes affecting the remittance of profits or capital, or the ability of the firm to operate its business in the light of its best commercial judgements, can subvert the whole basis on which the investment was made. A firm has no grounds for complaint if the conditions originally offered it are unfavourable; if it regards them as too unfavourable, it can decide to invest elsewhere. Nor should it necessarily object too much to cumbersome machinery which delays a decision on its application; this may be an indication that the application is being carefully assessed. But when conditions are first agreed and subsequently changed this is bound to cause resentment. Such changes are often an invitation to companies to make precisely the kind of investment that developing countries deplore: the investment that is made to pay off within a few years, regardless of the damage it may do to the country's longer-term economic interests.

66. However, stability should not be confused with rigidity. Economic forecasting is such a hazardous undertaking that it would be unrealistic not to recognize the need for some flexibility in the ground rules as time goes on: the less they are able to bend, the more likely are they to break. No Government, it might be argued, can deny itself the future right to use fiscal, monetary, exchange control or other policies in the way that the needs of the country require at the time; nor can any Government be expected to remain immune from the currents of regional or world opinion about the rights of Governments and the rights of private property owners; nor can any Government effectively bind its successor. For these reasons there are bound to be changes in the ground rules over time, and it would be unrealistic of investors to imagine that they are dealing with laws as immutable as those of nature.

67. The key point, then, would seem to be the need for Governments and investors to have regard to each other's legitimate interests. The country that arbitrarily changes agreed ground rules can hardly be surprised if

useful investment shuns it in future. On the other hand a company that fails to take into account the development needs of a host country can hardly complain if the Government takes action to ensure consistency with its objectives.

C. MULTILATERAL INSURANCE

68. Private investment in foreign countries, particularly developing countries, has conventionally been regarded in most developed countries as being attended by a greater degree of non-commercial risk than private investment at home. In order to encourage overseas investment in developing countries, several developed countries have for some years insured it against non-commercial risks, such as the effects of expropriation, inconvertibility, wars and revolutions. Some observers have regarded such insurance as unnecessary and ineffectual, in that an act of foreign investment will rarely be undertaken solely according to whether or not it is insurable. Others have contended that such insurance schemes probably have had the effect of increasing the flow of private investment to developing countries, and in particular, by covering the extra risks, may sometimes have reduced the rate of return required by companies on their foreign investments.

69. It has sometimes been suggested that, in addition to these national insurance schemes, there should also be a multilateral scheme; indeed such a proposal has been under consideration for some years in the International Bank for Reconstruction and Development (IBRD). Proponents of such a scheme suggest that expropriation or discrimination may be less likely in the case of investments insured by an international agency affiliated with the World Bank than in the case of investments insured only under national arrangements. Moreover, the operation of national schemes involves heavy administrative burdens, particularly for the smaller developed countries, and there would be obvious advantages in consolidating such responsibilities within a multilateral agency. Two additional advantages claimed for a multilateral scheme are that it would underpin national schemes and fill in any gaps they leave, and would enable multinational projects, undertaken by international consortia, to be insured. For the foregoing reasons most developed countries favour a multilateral scheme, although views differ as to the extent of the benefits that would be realized thereby.

70. A number of developing countries have reacted favourably to the idea of a multilateral scheme as likely to facilitate private foreign investment for the reasons discussed above. Some others, while they do not oppose such a scheme, consider it would benefit them little because they are unlikely to be able to attract much foreign investment in any case. Certain developing countries, however, have indicated objections to any arrangements which would shift disagreements between themselves and foreign firms into an international forum, or which would require arbitration of disputes with the proposed international investment insurance agency. As they see it, it is for them as sovereign powers to determine their relations with foreign firms. Objections have also been raised to the proposed arrangements for sharing voting power in the proposed agency between developed

and developing countries. Certain developing countries have objected to insurance arrangements, whether national or multilateral, as casting a reflection on host countries.

71. The scheme that some developed countries had in mind originally would have been financed by developed countries alone. More recently, however, it has been suggested that developing countries should also participate, and bear some share of any losses. The main argument advanced in favour of developing country participation in loss-sharing is that it would reduce the risk of expropriation without adequate compensation; but there is also the feeling that, as a matter of principle, members of an international agency ought all to share in the obligations as well as the benefits. Developing countries, on the other hand, feel that it is the investor, not themselves, who is the

main beneficiary of an insurance scheme, and that it is not for them to contribute to its costs. In addition, developing countries do not share in losses under any of the national insurance schemes and therefore do not see why they should have to share in losses under a multilateral scheme, which, to a large extent, would merely underwrite the national schemes. It can also be argued that there is something paradoxical in the suggestion that developing countries should, in effect, take out insurance against their own future actions.

72. Many countries, both developed and developing, consider that developing country participation in loss-sharing is not indispensable to the success of a multilateral scheme, if such a scheme were in other respects acceptable to the countries concerned.

Part two

SHIPPING, INSURANCE, TECHNOLOGY, TOURISM

NOTE ON PUBLICATIONS DEALING WITH SHIPPING

In connexion with this part of the present volume, reference should also be made to the following publications:

Shipping in the seventies: report by the secretariat of UNCTAD (United Nations publication, Sales No. E.72.II.D.15) *

The regulation of liner conferences (a code of conduct for the liner conference system): report by the UNCTAD secretariat (United Nations publication, Sales No. E.72.II.D.13 and Corrigendum) **

Multinational shipping enterprises: report by the UNCTAD secretariat (United Nations publication, Sales No. E.72.II.D.17) ***

* TD/177. Circulated to the Conference as documents TD/102, dated 21 September 1971 and TD/102/Corr.1, dated 3 November 1971, and TD/103, dated 21 September 1971, and TD/103/Corr.1, dated 22 October 1971.

** Circulated to the Conference as document TD/104, dated 13 October 1971, and TD/104/Corr.1, dated 4 November 1971, TD/104/Corr.2, dated 18 November 1971, and TD/104/Corr.3, dated 20 January 1972.

*** Circulated to the Conference as document TD/108/Supp.1, "Multinational shipping enterprises: supplement to the report by the secretariat of UNCTAD", dated 16 December 1971, and TD/108/Supp.1/Corr.1, dated 18 February 1972.

INSURANCE AND DEVELOPING COUNTRIES

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report was circulated to the Conference as document TD/141, dated 1 December 1971¹ and TD/141/Corr.1, dated 31 January 1972.

Introduction

1. The ideas that were embodied in the recommendation A.IV.23 concerning insurance and reinsurance adopted by the first session of the United Nations Conference on Trade and Development¹ and resolution 13 (II) concerning insurance adopted at the second session of the Conference² reflect an important advance in the understanding of the specific problems of developing countries in this field. From these recommendations and the discussions held on this subject at the meetings of the Committee on Invisibles and Financing related to Trade, a clear line of action emerges, including *inter alia* the following goals: the establishment of a sound and efficient national insurance market in every developing country, the creation of national insurance and reinsurance institutions, the reduction of the net outflow of foreign exchange on account of insurance transactions and the promotion of regional co-operation as one of the means of improving the terms and conditions of international insurance transactions.

2. The International Development Strategy adopted by the General Assembly for the Second United Nations Development Decade (General Assembly resolution 2626 (XXV)) sums up as follows the objectives as regards insurance and reinsurance in developing countries:

¹ For the full text, see *Proceedings of the United Nations Conference on Trade and Development*, vol. I, *Final Act and Report* (United Nations publication, Sales No. 64.II.B.11), p. 55.

² For the full text, see *Proceedings of the United Nations Conference on Trade and Development, Second Session*, vol. I and Corr.1 and 3 and Add.1-2, *Report and Annexes* (United Nations publication, Sales No. E.68.II.D.14), p. 50.

Reduction in the cost of insurance and reinsurance for developing countries, especially the foreign exchange cost, will be brought about by appropriate measures, bearing in mind the risks involved, to encourage and assist the growth of national insurance and reinsurance markets in developing countries and the establishment to this end, where appropriate, of institutions in these countries or at the regional level.

3. In full conformity with these objectives, the secretariat of UNCTAD, acting upon the specific requests of the Committee on Invisibles and Financing related to Trade, has completed several basic studies covering some fundamental issues related to the establishment and the development of national insurance markets in developing countries. These studies deal with the general problems of adequate insurance legislation and supervision, as well as with the special questions of the investment of insurance funds in the country where the premium income arises, and insurance statistics. It has become clear that, in order to encourage the establishment of sound and efficient national insurance markets, governments of developing countries must take the appropriate legislative and administrative actions to ensure more effective supervision and to regulate the insurance operations which are transacted in their territories by both national and foreign insurance concerns.

4. The following three chapters present highlights of the studies carried out by the secretariat of UNCTAD and conclusions to be drawn from them—some of which were formulated by expert groups, convened by the Secretary-General of UNCTAD to review and comment on the studies. These studies were considered by the Committee on Invisibles and Financing related to Trade at its fifth session, in connexion with item 7 (a) of its agenda. An

account of the Committee's deliberations on this subject will be found in its report.³ The same report contains in annex I the text of a draft resolution on insurance and reinsurance which had been submitted by the developing countries and which the Committee decided to transmit to the Conference for consideration.

Chapter I

Insurance legislation and supervision in developing countries⁴

5. As was stated by the Committee on Invisibles and Financing related to Trade at its first session,⁵ there is a growing interest in a number of developing countries in the matter of insurance legislation and supervision. This interest is fully justified, for various reasons. First, insurance supervision provides the policy-holders with a protection which is generally considered indispensable. A relatively long period elapses between the time when the policy-holders pay their premiums and the time when the claims, arising out of risks covered by the policies, are paid by the insurance concerns. At any given moment, therefore, the latter are in possession of sums which they will have to make available to the claimants at some time or other, but of which they temporarily have the use. The insurance concerns have not always managed these funds in a sufficiently responsible manner, with the result that the Governments—for the first time in some developed countries in the nineteenth century—have gradually been compelled to intervene. At the outset, the measures taken established certain requirements to provide minimum financial guarantees and placed the concerns under some degree of supervision. As insurance business expanded, the supervision has become increasingly strict.

6. In fact, modern insurance supervision is no longer understood as being a device to protect the interests of a restricted group of insured, since insurance business progresses along with economic development and industrialization to a point where the policy-holders tend to become virtually identical with the national community as a whole. State insurance supervision is, therefore, considered part of the State's responsibility on social and economic grounds. To assume this responsibility seems all the more necessary, particularly in the developing countries, as the legislative and administrative measures embodied in that supervision are essential for promoting the establishment, in each country, of a sound and efficient national insurance market, the existence and strength of which being, as is pointed out in the UNCTAD recommendations, an important requirement for the process of economic development. In addition, because of the different problems confronting the developing countries, all the economic sectors—in particular those which, like the insurance

sector, play an essential role in the collection of national savings—should contribute effectively to the development process. To ensure that they make this contribution, legislative measures are needed designed to channel the insurance funds and reserves to investment projects of national interest. Adequate supervision, including the regulation of the investment of insurance funds, also tends to reduce the foreign exchange outflow which is inevitably provoked by the insurance and reinsurance transactions with foreign concerns.

7. The study on insurance legislation and supervision in developing countries prepared by the UNCTAD secretariat and the report prepared by an expert group convened by the Secretary-General of UNCTAD in July 1961⁶ to comment on the study, indicate, on the basis of a thorough review of the existing systems applied in developing countries, a number of basic criteria to which these systems should conform.

8. The study of the existing systems of insurance supervision showed, as might have been expected, that most developing countries—with some exceptions—are far from having developed systems of supervision which fully meet the objectives mentioned above. In some developing countries—especially those which became independent fairly recently—insurance supervision either does not exist at all as yet, or has entirely maintained the methods prescribed by the former colonial Powers, tailored to satisfy the regulations of the metropolitan authorities while the specific local needs were disregarded. In other words, no specific effort has been made by some developing countries since their accession to independence to regulate properly the insurance business transacted in their territories, with the consequence that their national insurance markets are not adequate and that their domestic insurance industry does not find the necessary incentives to develop on a sound basis.⁷

9. The insurance supervision in a number of developing countries has proved to be inadequate also as regards the standards of solvency. In some cases these standards are so strict that domestic insurers can hardly afford to observe them, and the market is forced to remain in foreign hands; in other cases they are too lenient, and there the public may be reluctant to seek protection from companies whose solvency is not always secure because they are not efficiently supervised. Legislative measures governing the investment of insurance funds are another example of cases where the requirements of some developing countries fail to fulfil the specific conditions of their capital market and where modifications could ensure a better utilization of these funds in projects of national interest, providing, at the same time, a better financial security for policy-holders.

10. The main criteria according to which insurance supervision should be carried out in order to be most

³ *Official Records of the Trade and Development Board, Twelfth Session, Supplement No. 2 (TD/B/395).*

⁴ See TD/B/C.3/84 and Add.1 and 2 and Corr.1, study by the UNCTAD secretariat, and TD/B/C.3/90, report of the Expert Group on Insurance Legislation and Supervision.

⁵ See the Committee's report on the first part of its first session, in *Official Records of the Trade and Development Board, Third Session, Supplement No. 3 (TD/B/42/Rev.1)*, annex I (b), para. 4.

⁶ See footnote 4 above.

⁷ Inadequate measures may lead to a situation where the volume of insurance business of a country increases more rapidly than the absorptive capacity of its national insurance market and hence to greater dependence on foreign insurers and especially reinsurers.

efficient in achieving the objectives of the developing countries in this field are laid down by the Expert Group as follows:

(a) Special emphasis should be laid on the supervision of the classes covering popular insurance, those involving social aspects and long-term commitments. Thus, life, small private property and third-party liability insurance are important examples of what should be the subject of particular supervision.

(b) Effecting insurance directly abroad, with insurers not established in the country, should be forbidden in principle. Only in cases where no cover can be provided in the country might this practice be accepted as an exception. This rule likewise calls for the promotion of the national market, in order that an increasing number and more types of the national risks can be covered in the country.

(c) Licensing of insurance concerns before they commence business should be prescribed. In this context, licensing does not mean a mere formal registration, but should be preceded by a comprehensive pre-licensing examination of the technical and economic conditions of the concern, of its plan of business to be transacted in the coming few years, of the technical skill and integrity of its managers, and of its reinsurance arrangements. Ample powers should be given to the authorities in charge of insurance supervision to appraise all the qualifications of insurance firms, to prevent untrustworthy concerns and camouflaged foreign interests (so-called "front" companies and "strawmen") from entering the business.

(d) Specific laws should be enacted to regulate the contractual relationship of insurance firms with policy-holders. In the compulsory classes of insurance, there is a conspicuous need for the standardization of the insurance contracts. In other classes of insurance, general rules covering the most important terms and conditions of the policies should also be laid down, and the policies should be supervised by the authorities in order that no obscure or ambiguous terms and no terms detrimental to policy-holders should be introduced.

(e) The share capital and free reserves of the insurance concerns should be sufficient to ensure adequate over-all solvency, corresponding to the kind and volume of the business transacted by the concerns and providing a fair safeguard against adverse fluctuations of risks. The amounts constituting these financial guarantees should, in addition, be large enough to ensure a suitable level of the company's retention capacity, and so to provide the basis for the strengthening of both the company and the national market. However, excessive requirements as regards the share capital could result in the increase of the insurance costs and might, therefore, be detrimental to policy-holders and to the national economy.

(f) Technical reserves should be evaluated as correctly as possible and strictly verified. In general, the calculation of the reserves should be based upon adequate extrapolations (prospective methods), with due regard to experience and observed trends. The setting up of technical reserves should in principle correspond to the gross liabilities of direct insurance business without deduction for the reinsured risks. Frequent checks on

the validity of "en bloc" rates of reserves are recommended.

(g) The investment of insurance funds should satisfy the main requirements of providing security for the liabilities towards policy-holders and beneficiaries and contributing to the supply of financial means for the country's most essential investment needs. These objectives obviously require, as recommended by the Conference at its first session, that funds allocated to cover the technical reserves and other complementary reserves are invested in the country, this condition applying irrespective of the nationality of the insurance concern. To the classical criteria of security, profitability and liquidity should be added that of diversification of the investment portfolios. No speculative investment should be accepted, but sound equities could qualify for inclusion. The holding by an insurance company of shares or participations in another enterprise should be kept to a minimum so as to exclude all possibility of acquiring a controlling interest in any outside enterprise. Each country should exercise considerable flexibility in making regulations governing the choice of authorized investments for insurance concerns. The regulations should, however, stipulate the two main requirements, namely the security of the concerns and policy-holders and the financial necessities of the country.

(h) Tariffs, costs, reinsurance agreements, accounting and statistics, being the main elements of insurance management, should all be subject to government supervision. Tariffs, in particular, should not be either uneconomically low (the chief cause of insolvency) or excessively high, particularly in the compulsory classes of insurance. Investment income derived from assets corresponding to the technical reserves should be taken into account in the calculation of tariffs. Sales commissions to agents and intermediaries should be commensurate with the services they offer to the public. Commissions on the sale of compulsory classes of insurance should be reduced to a minimum.

(i) The presence of a public or semi-public reinsurance institution in a developing country, with provision for the compulsory cession of business to that institution, may provide an essential encouragement to the development of a sound national insurance market and reduce the foreign exchange outflow on account of reinsurance transactions.

(j) Owing to the specific and very technical nature of their duties, insurance supervisory authorities should constitute an independent branch of the civil service, at a high level, responsible directly to a high-ranking government officer (Minister). These duties call for competent personnel qualified in legal, economic, accounting and actuarial matters. Special training facilities in insurance and in supervision techniques should be provided for such personnel. Co-operation among insurance commissioners of different countries should provide opportunities for exchanging experience and information. The establishment of regional associations or of conferences of insurance supervisors should be promoted.

11. In summing up, the importance for every developing country to regulate the insurance business transacted in its territory by setting up a system of adequate

insurance supervision must be re-emphasized. It is suggested, therefore that the Governments of developing countries:

- (1) examine, in the light of the conclusions of the UNCTAD secretariat's study and of the Expert Group's report, the extent to which their countries' insurance legislation and supervision correspond to the requirements of an adequate supervisory system;
- (2) take, if necessary, appropriate measures for improving the insurance legislation and supervision systems, for which purpose technical assistance may be sought and obtained from the secretariat of UNCTAD, within the framework of the United Nations Development Programme (UNDP);
- (3) make full use of training facilities, to be provided by the developed countries in insurance concerns and in government supervisory authorities, as well as by the UNCTAD secretariat within the framework of UNDP, in order to build up an insurance supervisory service staffed by persons competent to carry out insurance supervision effectively;
- (4) establish regional or sub-regional co-operation among their supervisory authorities with a view to exchanging experience and information regarding insurance supervision and harmonizing insurance legislation.

Chapter II

Investment of the technical reserves of insurance concerns in the country where the premium income arises⁸

12. The report prepared by the UNCTAD secretariat on the subject⁹ indicates the need for the investment of technical reserves in the country where the premium income arises. It is universally recognized that the technical reserves of insurance concerns, which *de facto* represent the value of the concerns' current commitments towards their policy-holders and third party beneficiaries, play an important economic role in that they lead to the accumulation of large sums for investment in the countries' economies. In view of the general scarcity of capital in the developing countries, the technical reserves of insurance concerns are of vital importance in these countries. Desiring to enable these countries to benefit from the insurance funds, the Conference recommended at its first session that "technical reserves and guarantee deposits of insurance and reinsurance companies or institutions should be invested in the country where the premium income arises".⁹

13. However, an investigation carried out by the UNCTAD secretariat for the Committee on Invisibles and Financing related to Trade to determine to what extent that recommendation is being put into effect shows that as yet only relatively few developing countries have taken action to apply the principle of the investment of technical reserves of insurance concerns in the country where the premium income arises. In its new study, the UNCTAD secretariat has sought to spell

out as clearly as possible the technical aspects and practical modalities of implementation of the recommendation, hoping to promote in this way its implementation by all developing countries.

14. The principle that technical reserves should be invested in the country where the premium income arises is by no means new. In fact, the practice of localizing the technical reserves of each national portfolio has long been observed in very many industrialized countries. However, the application of the principle is not uniform in all these countries and presents certain technical difficulties, some of them connected with the definition and valuation of technical reserves and others with the investment and supervision of the corresponding funds.

15. In other words, in order that technical reserves may be invested in a suitable manner, in the country where the premium income arises, with maximum benefit and without endangering the primary function of insurance (the covering of risks with absolute security and at a reasonable cost), it is essential to take due account of a number of factors, of which the most important are:

- (a) The nature of the technical reserves of insurance concerns;
- (b) The correct evaluation of technical reserves;
- (c) Reserves with or without deduction for reinsurance;
- (d) The type of investment suitable for insurance purposes;
- (e) The correct evaluation of investments;
- (f) The practical application of the principle.

16. The mathematical reserves in life insurance and the reserves for unexpired risks and reserves for outstanding claims in non-life insurance are the three main forms of technical reserves and are generally regarded as the classical technical reserves. Provided that they have been properly valued, these three reserves should normally suffice to cover the whole of an insurance concern's current commitments arising from the risks of its portfolio. Generally speaking, if they employ traditional methods of calculating the three types of technical reserves mentioned above (except, perhaps, in some cases regarding the reserves for outstanding claims) insurance concerns are unlikely to experience any extreme difficulties in evaluating correctly their pending liabilities.

17. The main characteristics of investments which are suitable for insurance purposes are the subject of another clause in the aforesaid recommendation of the first Conference which provides that "adequate conditions of security, liquidity and income must... be assured", in order that investments should be made in the country where the premium income arises. The above guidelines, as well as the rule that investment risks must not be allowed to accumulate, must be strictly observed by all insurance concerns which, at the same time, should also ensure that their funds are invested in a manner beneficial to the national economy.

18. In order to verify at any given moment the observance by an insurance concern of the recommendation that technical reserves should be invested in the country where the premium income arises, the following

⁸ See TD/B/C.3/87 and Corr.1.

⁹ See *Proceedings of the United Nations Conference on Trade and Development*, vol.I, *Final Act and Report* ..., Annex A.IV.23, p. 55.

procedure should be followed: first, the evaluation of the technical reserves must be verified; next, the list of investments serving as cover for the reserves must be checked to ensure that the investments satisfy local requirements; and lastly, a check must be made to ensure that the investments shown on the list are actually located in the country and are owned by its insurance concerns.

19. In conclusion, the study suggest that:

- (1) Governments of developing countries should consider, in the light of this report, the extent to which they have implemented the recommendation that the technical reserves of insurance concerns should be invested in the country where the premium income arises;
- (2) the same Governments should inform the UNCTAD secretariat as soon as possible about the progress made in implementing the said recommendation in their countries and about any further measures they may contemplate with a view to improving the present situation;
- (3) the secretariat should make available to developing countries, upon request, any assistance they may need in connexion with the implementation of the recommendation;
- (4) the secretariat should report to the Committee on Invisibles and Financing related to Trade, at its sixth session, on the implementation of the recommendation by the developing countries.

Chapter III

Unified international system of insurance statistics¹⁰

20. Already at its first session the Conference noted the shortage of reliable statistics of invisible transactions generally, and more specifically called for the adoption of uniform criteria for the compilation of the statistics of insurance transactions.¹¹ And the Committee on Invisibles and Financing related to Trade, in the programme of work adopted at its first session,¹² referred to the desirability of working out minimum statistical standards and definitions and preparing meaningful and internationally comparable statistics of insurance transactions, with specific reference to the possibility of assessing the influence of international insurance transactions on the balance of payments of developing countries.

21. Besides their specific relevance to the problem of the balance of payments, insurance statistics have other important and fundamental functions, both at the company and at the national level. At the level of the individual insurance undertakings the insurance statistics constitute the technical background for their operations and are at the same time a major tool for the supervision of the undertakings by the insurance supervisory author-

ity, in particular as regards the control of their financial status and solvency. Such statistical information usually follows very closely the business records and accounts of an insurance undertaking which are, in turn, a source for the preparation of the annual accounts of the undertaking and official returns to be submitted to the supervisory authority.

22. At the national level, insurance statistics provide the means of carrying out a comprehensive analysis of the structure and the state of the national insurance market and also give a good deal of technical information about the conduct and the results of the insurance transactions. According to the degree of detail of the statistical information collected and compiled, annual nation-wide statistics make it possible to assess, for the whole country, the volume of the insurance business concluded by all undertakings operating in it and so to determine the size of the country's insurance market, its structure (e.g. domestic and foreign enterprises), its efficiency as a provider of insurance cover, its role in the saving of funds and its contribution to the country's development through investments in the national economy. Furthermore, conclusions can be drawn from the statistical data as to the influence of international insurance transactions on the country's balance of payments. On the technical side such statistics give an insight into the functioning of the market and its strength or weakness. They show the technical results of the insurance operations for the market on average and in every individual class of insurance transactions for which the separate data are provided. For a proper fulfilment of all these purposes it is, of course, important that all the insurance undertakings provide the basic information on an identical or at least on a fully comparable basis and that adequate means are available for collating such market information.

23. Compiled consistently over a period of years, such statistical information would reflect the development and evolution of the market and so permit the periodic adjustment of the regulations governing the insurance business in a particular developing country with a view to building and strengthening its national insurance market and guiding the economic activities of the insurance industry in such a way that they best serve the country's economic development.

24. All these essential aspects and requirements are taken into account in the UNCTAD secretariat's recent study of this subject,¹³ prepared with the assistance of a group of experts convened by the Secretary-General of UNCTAD in Geneva from 7 to 15 October 1970.

25. The core of the recommended unified system of insurance statistics is what is called in the report "the national monograph", to be prepared by the supervisory authority of each country on the basis of the statistical information received from the individual insurance undertakings. But a unified presentation of statistical information at the national level has to be preceded, first by the standardization of the primary elements of the system, and secondly, by the definition of the basic notions on which the whole system rests. Accordingly, the recommended

¹⁰ See *Establishment of a Unified International System of Insurance Statistics: Report by the UNCTAD secretariat* (United Nations publication, Sales No. E.72.II.D.9).

¹¹ See *Proceedings of the United Nations Conference on Trade and Development*, vol. I, *Final Act and Report* ..., Annex A.IV.23, p. 55.

¹² *Official Records of the Trade and Development Board, Third Session, Supplement No. 3* (TD/B/42/Rev.1), annex I.

¹³ See note 10 above.

system has as its primary source of information the traditional forms of the business records, namely the profit and loss account and the balance sheet, which are kept and maintained by every insurance undertaking in the normal course of its business. The major problem here was how to overcome the differences in practices existing not only among various countries, which arise mostly from the conceptual, legislative and supervisory approaches, but also the differences, although of a minor nature, in methods and practices of recording and accounting of individual companies.

26. As a first approach to the unification of the primary sources of information it was decided, therefore, to work out a unified break-down of all the primary elements or items which are relevant to the profit and loss account in this broad sense, both on the income and on the expenditure sides, and agree upon the classification of all the items of assets and liabilities for the balance sheet.

27. Having specified the minimum initial requirements, the system provides for two sets of series, one for the use of the insurance undertakings producing the basic data, and the other for the supervisory authority preparing the national monograph. It should be emphasized at this stage that the collection of the series designed for the undertakings should be carried out in a comprehensive manner, so that all types of undertakings dealing with insurance are included in the national monograph. Consequently each and every undertaking would be required to fill in a set of forms which have been worked out for the purpose and accompany them with explanations, if required.

28. The second set of forms is designed for the national monograph. It follows precisely the nomenclature of the original items in the individual undertakings' forms with regard to both the elements of the profit and loss account and the technical results. The first important series includes the forms showing the trading results of the national portfolio, and provides three separate columns of figures for the gross direct business and the net retained business for each type of insurance concern: State institutions, domestic private undertakings,¹⁴ foreign branch offices and agencies, with subdivisions into life insurance and all other classes of business. The technical results for direct business on the basis of gross figures in each class of business are further elaborated by means of a special set of forms. Two further tables are provided, one showing the technical reserves of the national portfolio together with data on the paid-up capital and the free reserves of the insurance undertakings operating in the country, and the other giving an analysis of the types of investments shown in the balance sheet divided into types of insurance undertakings and indicating whether the investment is made in domestic or in foreign assets.

29. As the unified international system of insurance statistics is designed principally for developing countries, it was considered especially important that it should lay down only the minimum requirements for the compilation of the statistical tables, with a view to reducing to a bare minimum the costs of its introduction. As a matter of

fact, many countries, especially the developed market economy countries, and some developing countries whose insurance markets are in an advanced stage of development, would have to make only minor adjustments in their existing arrangements to conform to the proposed new system. There is, however, a larger group of developing countries whose national statistical systems are either non-existent or inadequate. These countries would have to cope with the problem in any case. If, therefore, they can commence the necessary work in the knowledge that the results of their efforts will be in line with internationally acceptable standards, they would not only be encouraged to follow the recommended course of action more energetically, but may also hope to achieve their purpose with less expense than they would have incurred, if they had undertaken it individually.

30. Even though this is only a minimum system and can be considered as the first step towards bringing closer together the conceptual approaches of various insurance markets of the world, it is sufficient for an analysis of the insurance market and for the effective supervision of its operations. Further, the meaningful and comparable data covering the operations of the national markets and measuring the impact of the international insurance transactions, including those of reinsurance, will make it possible to quantify these activities on an international scale and to measure their economic impact. In fact, the main innovation of the unified international system of insurance statistics is the clear-cut separation in reporting the insurance business underwritten by the domestic sector and the foreign sector of the national insurance market as well as the business which goes directly abroad or originates from abroad. This innovation meets the most important requirement of developing countries as expressed in UNCTAD resolutions directed at the development and strengthening of the national insurance markets in developing countries and the objectives of the Second Development Decade (see paragraph 2 above).

31. Developing countries, by using the proposed unified international system of insurance statistics, would be able not only to know their insurance market better, but also to work out and take all the necessary measures to regulate that market so that it would best serve the insured and the process of economic development. They will also benefit by having comparable data about insurance markets of other countries. It should therefore be recommended that the Governments of the member countries of UNCTAD, in particular of the developing countries:

- (1) introduce the unified international system of insurance statistics as proposed in document TD/B/C.3/85 or, where appropriate, adapt their present system of insurance statistics in order to make it compatible with that unified system;
- (2) make use, if necessary, of the technical assistance which could be provided by the UNCTAD secretariat in this connexion, as far as developing countries are concerned, within the framework of UNDP;
- (3) inform in due course the UNCTAD secretariat of the implementation of this recommendation in their countries, so that the secretariat can report to the appropriate UNCTAD bodies.

¹⁴ With an optional additional classification into genuinely domestic and foreign-owned companies (subsidiaries).

TOURISM AND DEVELOPING COUNTRIES

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report was circulated to the Conference as document TD/142, dated 20 December 1971.

Introduction

1. The UNCTAD secretariat prepared a report entitled *Elements of tourism policy in developing countries* (TD/B/C.3/89/Rev.1)¹ in the context of the work programme on tourism adopted by the Committee on Invisibles and Financing related to Trade at its first session. That programme emphasized the need for research into the economic aspects of tourism and for the formulation of appropriate policies.

2. In conjunction with the four country studies, on Israel, Greece, Mexico and Yugoslavia (TD/B/C.3/89/Add.1-4), the report attempted to throw some light on the economic significance of tourism, especially for developing countries (including in particular its contribution to the balance of payments), and discussed some of the principal elements to be taken into account in the planning and development of tourism. The discussion and conclusions constituted no more than a first and tentative approach to a subject concerning which there is as yet little specialized literature and no recognized methodology, but it was hoped that the document might assist developing countries in dealing with the complex problems of planning and policy formation in connexion with the development of tourism. The report has been submitted, together with an UNCTAD secretariat report on tourism statistics,² to the Committee on Invisibles and Financing related to Trade at its fifth session.

3. Necessarily, the present condensed version of the study does not include the considerable amount of statistical and other factual material cited in support of the arguments presented; neither does it include the detailed qualifications to general statements or a discussion of limitations regarding the statistical information available. For a full appreciation it should therefore be read in conjunction with the detailed study referred to above.

Chapter I

The evolution of international tourism and its significance for developing countries

A. THE PAST GROWTH OF INTERNATIONAL TOURISM

4. The volume of world tourism, as measured by the aggregate number of arrivals of tourists, rose by 10 per cent annually between 1958 and 1970. Receipts from international tourism grew at a corresponding rate and somewhat faster than world (merchandise) exports (respectively 10.2 per cent and 9.3 per cent annually). However, it seems that the growth of receipts from tourism was distinctly faster than that of world exports in the first part of the period than it was in the second part.

5. As regards specifically the developing countries, their exports (excluding petroleum) rose by 7.6 per cent annually between 1960 and 1968, whereas their receipts from tourism increased at an annual rate of 11 per cent (which compares with a growth of 9 per cent in world

receipts from tourism).³ The share of developing countries in world receipts from tourism has been generally around 20 per cent and compares favourably with their share in world exports which (if petroleum exports are again excluded) has in fact been declining continuously, from 15.4 per cent in 1960 to 12.2 per cent in 1968.

6. Receipts from tourism figure prominently in the balance of payments of some developing countries, such as Mexico, where they account for half or more of total current foreign exchange earnings, and in several island economies. There are others, such as Kenya and Tunisia, where tourism has made important strides and become a leading source of export revenue. In many others tourism is a relatively unimportant item in the balance of payments, often accounting for less than 1 per cent of total current foreign exchange earnings, and during the 1970s is likely to remain so, in view of the potential growth of other sources of foreign exchange earnings also.

B. THE PROSPECTIVE GROWTH OF INTERNATIONAL TOURISM

7. It is quite possible that the growth of international tourism in the 1970s may be rather slower than that experienced during the 1960s, or even during the latter half of that decade, but there is every reason to suppose that the various factors underlying the growth of travel in the past will continue to operate, even if less strongly. Some of these factors are largely beyond the control of a receiving country, since they are related to conditions in the countries of origin of visitors which, while they influence the over-all volume of foreign travel, scarcely affect its geographical pattern. Examples are the rise in real income in the developed countries, which (for any given level of *per capita* travel expenditure) brings foreign travel within the reach of more people, the relatively high income elasticity of expenditure on foreign travel, longer and more frequent paid holidays, the spread of education (which stimulates greater interest in foreign places and cultures), etc.

8. Perhaps foremost among the factors affecting the nature and geographical pattern of travel are improvements in air transport and the increase in travel by private car. Besides favouring countries within driving distance from the main markets, use of the car has encouraged newer forms of tourism and accommodation such as camping, motels, holiday villages and other types of supplementary accommodation, as well as the spread of tourism to new localities.⁴

³ Sources: (IUOTO), *International Travel Statistics* (various issues) and *Technical Bulletin* BT/TS/1/69, February 1969; UNCTAD, *Handbook of International Trade and Development Statistics 1969 and Supplement 1970*. In the figure cited above Spain is not included among the developing countries. The inclusion or exclusion of Spain makes a considerably greater difference to the results than when most other items of world trade are considered, since Spain is among the leading countries in terms of both the absolute value of foreign exchange earnings from tourism and of their growth since 1960. If Spain is included among developing countries, those countries accounted for about 28 per cent of world receipts from tourism in 1968, against roughly 22 per cent in 1960.

⁴ The factors affecting the geographical pattern of tourism have not been considered in detail in the UNCTAD secretariat's report.

¹ United Nations publication, Sales No. E.73.II.D.3.

² *Guidelines for tourism statistics* (United Nations publication, Sales No. E.71.II.D.9). See also the annex to the present document.

9. For longer distances the progress of civil aviation (reduction in travel time and the greater number and frequency of direct flights) has been a major influence on travel. Although the basic level of air fares has undergone little change in absolute terms, the relative cost of air passenger travel has fallen.

10. Many developing countries are bound to depend mainly on air travel for their tourist traffic, as they are far from the countries of residence of the bulk of their visitors. For these countries the expansion of tourism depends (apart from such factors as economic growth in developed countries) on how far basic air fares can be brought down or prevented from rising, the extent to which scheduled carriers concede reductions as part of inclusive tours or of other arrangements, and policies applied in developed, but also in developing countries, in respect of unscheduled services (charters).

11. Various studies and estimates suggest that the total volume of air passenger travel (including domestic travel) should grow at rates not much below those achieved between 1958 and 1969, with a continued relatively faster expansion of inclusive tours within the total. Estimates of the prospective over-all growth of international tourism suggest that an increase of about 5 per cent a year in world arrivals during the 1970s is a realistic, but by no means unduly optimistic, assessment of the future.⁵

12. It is somewhat less certain whether the growth of real income and possible falls in the relative cost of (long-distance) air travel will be of proportionately greater benefit to developing countries than to the developed ones, since cheaper trans-Atlantic, trans-Pacific and other inter-continental fares would stimulate two-way traffic among developed countries as well. Past trends suggest, however, that developing countries as a whole should be able at least to preserve their share of the world market, if not to enlarge it.

Chapter II

Tourism and the National Economy

A. TOURISM AS A SOURCE OF FOREIGN EXCHANGE

1. *Net foreign exchange receipts and the import content of visitor expenditure*

13. Figures of gross receipts from tourism overstate the true gain to the balance of payments, since the provision of goods and services for visitors necessitates imports of current inputs of goods and services, as well as of capital goods. In considering the impact of international tourism on the balance of payments of a country, the relevant question is whether or not there would have been similar inflows and outflows of foreign exchange in the absence of foreign tourism. Particularly in the case of investment, this question is not easy to answer, since hotels and other amenities (including the infrastructure) do not serve foreign visitors exclusively but serve also the resident population.

⁵ For further reference to these estimates see *Elements of tourism policy in developing countries*, para. 32.

14. The most important debits in the balance of payments on current account which are associated with tourism and which would not otherwise be incurred are discussed below.

(a) *Imported goods and services consumed by visitors*

15. These include not only those imported directly but also those which, though produced domestically, involve the import of raw materials or semi-finished products for further processing. The intermediate goods imported by domestic producers in connexion with that part of their output which is sold to the tourist sector for consumption by visitors are considered as "indirect" imports.

(b) *Factor payments abroad*

16. These constitute an outflow of foreign exchange on current account in connexion with commissions to travel agents and tour operators, with management fees to foreign concerns, with profits and other income earned by non-resident companies or individuals, and with the remuneration of expatriate staff of hotels and other establishments and of foreign artists and entertainers, etc.

17. Other items which might qualify are expenditure by official bodies on publicity abroad, imports of capital goods in connexion with accommodation and other tourist amenities, and imports of consumer goods for the resident population that in one way or another result from the presence of tourists in the country.

18. In the following discussion only items (a) and (b) above have been taken into consideration. For two countries (Israel and Kenya) and for the State of Hawaii it was possible to examine the import content both of the total expenditure of visitors and of the output of different sectors selling directly to visitors. The results of this examination suggest that the hotel sector has a somewhat lower import content of output than other sectors of the economy, and that for sectors selling souvenir articles and other goods to visitors the import content is relatively high.

19. In three of the countries covered by the studies of the UNCTAD secretariat, however (Greece, Mexico and Yugoslavia), the ratio appeared to be rather low (and in Yugoslavia very low). From the limited evidence it might therefore be tentatively concluded that in island economies (such as those in the Caribbean) and in the Mediterranean net foreign exchange proceeds from foreign tourism generally range from 50 per cent to 70 per cent of the gross receipts, while in other developing countries the proportion may well be rather higher—perhaps 70-80 per cent, and even more in countries which are able to supply all but the luxury type of consumer goods from domestic output.

20. It would also appear that, expressed as a proportion of gross receipts from tourism, the foreign exchange outlay on imports is relatively smaller than in the case of many other exports, or at any rate not above the average for exports. The reason is mainly that, apart from food and certain other items, visitor expenditure makes an impact primarily on service trades, perhaps greater than that of the consumption of residents and certainly greater than commodity exports in general.

2. Imports of capital goods for tourism

21. Because of the general foreign exchange constraint, most developing countries are necessarily concerned with the cost of essential imports for investment, whether for tourism or for other purposes. In the same way as for current inputs, the import content of the investment in tourism is dependent upon the country's general economic structure and the breadth of the domestic industrial base. It is also related to the quality of tourism, since the better the hotel the greater will be the demand for equipment and fittings that are not yet manufactured locally at all or in the appropriate quality.

22. Available estimates, besides being confined generally to hotels, usually take account only of direct imports, but on this basis inter-country differences tend to be as great as for the import content of current inputs (with a high dependence on imports again in island economies). There are also grounds for concluding (partly from the data in the UNCTAD secretariat studies of Greece and Yugoslavia) that the ratio of imports to output for tourism (as represented by the hotel sector) is lower than for many other sectors. Furthermore, as developing countries gradually broaden their industrial base, it should be possible to reduce the import content of investment in hotels by greater recourse to domestically produced goods such as furniture and fittings, as well as certain building materials.

23. This foreign exchange cost can in any case be recouped in a relatively short time. For high-class hotels roughly three units of gross fixed investment are necessary to earn annually one unit (gross) of foreign exchange. If it is assumed that as much as half the investment has a foreign exchange cost and that net annual receipts of the hotels built are 80 per cent of the gross, the original foreign exchange outlay is recovered in slightly under two years (excluding the gestation period of the investment); and even if as much as 40 per cent of gross receipts leak out of the country, less than four years are required. This tends to limit the impact of investment on the current balance of payments.

3. Net foreign exchange returns

24. It is relevant to consider returns on investment in tourism in terms of the net amount of foreign exchange earned (in the sense described above) per unit of investment. Comparisons can be made with other sectors, making allowance for different shares of exports in total output. A comparison of this kind was made for Yugoslavia, from which it appeared that for the hotel sector the capital required per unit of net foreign exchange earned was one of the lowest for any sector, even in comparison with sectors exporting a similar portion of their output. A recent study in Kenya came to similar conclusions, as does also the application of the yardstick used in Israel of the "price of the dollar".⁶ It would thus seem that tourism can

be not only an important, but perhaps also a relatively efficient, earner of foreign exchange.

B. INCOME AND EMPLOYMENT GENERATED BY TOURISM

1. Contribution of tourism to domestic product

25. Valid international comparisons of the contribution which international tourism makes to national product necessitate knowing at least the import content of visitor expenditure or measuring in other ways the value added by tourism. In the four countries studied by the UNCTAD secretariat it can be concluded that, very roughly, the contribution of international tourism to national product ranged from 1 per cent to 3 per cent. The proportions are very much higher in island economies, being, for example, of the order of 15 per cent in Trinidad and Tobago, over 20 per cent in Antigua, and as much as 45 per cent in the Bahamas.

2. Multiplier effects of visitor expenditure

26. Like an increase in a number of other kinds of expenditure (such as an increase in expenditure on investment, exports and government consumption), a rise in expenditure by visitors has multiplier effects—that is to say, by the time the effects of the increased expenditure have worked through the economic system, there is a total increase in income larger than the increase immediately resulting from the higher expenditure of visitors.

27. Some supporters of the view that developing countries should promote tourism as a means of raising national income lay much stress on these multiplier effects, but it is sometimes overlooked that they are only one element in the whole picture, and since other forms of expenditure have similar effects, undue importance should not be attached to this one element. Moreover, although differences among countries in the size of the multiplier are normal (mainly because of differing degrees of import dependence), there is confusion in the literature concerning the "tourist multiplier" owing to the indiscriminate use of terms having different meanings. Sometimes the expression is used to refer to the number of transactions made before the effects of successive rounds of expenditure are exhausted; sometimes it is used to refer to the ultimate effects on "income", "turnover" and "economic activity", without it being made explicit whether this is understood to mean national income or some other concept.

3. Investment and output for tourism

28. Although capital-output ratios are only a crude means of measuring the productivity of investment, it is worthwhile to examine whether, in addition to its apparent efficiency as an earner of foreign exchange, tourism requires relatively little or much capital per unit of domestic product generated. The available evidence is far too limited to permit any firm conclusion to be drawn, and

⁶ This is the local currency cost of a net dollar of exports. The cost in national currency of domestic resources used in producing the export commodity (i.e. excluding the equivalent in national currency of the foreign exchange cost of imported inputs) is related to net foreign currency earnings (gross earnings less the foreign exchange

cost of imports). The higher the "price" or cost of the dollar for a particular product the smaller is its relative advantage as an earner of foreign exchange.

there is clearly a need for much more research, in which precisely what is included in investment and in output is made explicit. In the UNCTAD secretariat's study of Yugoslavia, it was concluded that the ratio for the hotel and catering sector appeared somewhat higher than that for the economy as a whole and for several industrial sectors. On the other hand, rough calculations made in one independent research study for Kenya suggest that the incremental capital-output ratio is not above the national average, being much the same as for agriculture and for the monetary economy as a whole, and distinctly lower than that for industry.

4. Government revenue from international tourism

29. Some of the factor income (i.e. the remuneration of labour and capital) generated by the expenditure of visitors accrues to the Government as direct or indirect taxes. Where tourism bulks large in the formation of the domestic product, it tends also to contribute a high share of total tax revenue. In such cases the tourism sector is apt to be one of the principal sources of development financing. The importance of tourism as a source of tax revenue in most countries should not, however, be exaggerated. In any event, such benefits constitute only one of several elements to be considered in evaluating the contribution of tourism to the economy. Although other implications (for the balance of payments and in other respects) might follow, the same net revenue may often be obtainable by an alternative use of resources or by changes in taxation affecting residents.⁷

30. Furthermore, a simple comparison of government revenue from tourism with government outlays on publicity and similar expenditure ignores the many other costs to the public sector that are involved in providing road and airport services to visitors, other public transport, as well as public utility services (electricity, water, sewage, etc.), which would not otherwise be required. A recent study of tourism in Hawaii confirmed that there was a net benefit to the public sector, even when these additional costs were taken into account.⁸ Benefit-cost ratios were found to be positive for all the groups of visitors distinguished, even on the least favourable assumptions regarding the proportion of immigrants in future increments of the hotel labour force and of tax revenue in total receipts from tourism. The ratios also tended to rise with the size of visitor income.⁹

⁷ Assuming that net foreign exchange receipts would be unchanged as a consequence, this argument can also be raised with regard to tourism's contribution to domestic product—i.e. that there is a net benefit to the economy from tourism only in so far as labour and other factors of production earn higher incomes than if they would otherwise be engaged in other activities or remain unemployed. For a fuller discussion see Frank Mitchell, "Integration of tourism in the Plan: Assessing the value of tourism", *The 1969 UNECA/Dag Hammarskjöld seminar on the development and promotion of tourism in Africa. Lectures* (Uppsala, Dag Hammarskjöld Foundation, February 1970), Part I.

⁸ *The Visitor Industry and Hawaii's Economy: A Cost-benefit Analysis*, prepared for the State of Hawaii Department of Planning and Economic Development, Mathematica, Princeton, New Jersey, February 1970.

⁹ The minimum ratio was 2.8—i.e. in the least favourable case the State received 2.8 times as much from each visitor as it spent on public services for him.

31. It would seem from this study of conditions in Hawaii that, even if the infrastructure costs are relatively heavy, only in an extreme situation might the over-all cost to the Government exceed the benefits accruing to it in the form of tax revenue. Such a situation might raise doubts about the advisability of developing tourism, though its subsidization (effectively by other sectors of the economy) might still be justified if the balance-of-payments and other benefits to the economy were particularly large.

5. Tourism as a generator of employment

32. The contribution of tourism to income generation is broadly similar to its contribution to employment. For example, it is relatively small in Israel, Greece and Yugoslavia and much greater in islands, such as those in the Caribbean.

33. The data examined by the UNCTAD secretariat do not generally measure the full extent of tourism-induced employment since they exclude employment generated in the tourist-supplying sectors and other indirect employment effects (for example, on the construction industry). A fuller assessment calls for penetrating research at the national level. In the present inadequate state of knowledge it seems that the indirect impact on employment could be as great as the direct impact.

34. It is not entirely clear from the evidence whether the tourism sector is a relatively labour-intensive one (i.e. whether it creates relatively high employment per unit of capital invested or per unit of tourism-induced domestic product). The data for Israel and Yugoslavia, for example, did not suggest that tourism was a particularly labour-intensive activity, and in Hawaii no clear interpretation could be put on them. In Kenya, on the other hand, tourism does appear to be somewhat more labour-intensive than private-sector activities as a whole.¹⁰

35. Whether or not tourism is relatively labour-intensive, it often brings employment (and supplementary income) to less developed regions of a country. Indeed, in some regions, or at least in resort areas within them, it can become the main economic prop, on which a large part of the resident population depends directly or indirectly. Even when a significant portion of total visitor nights is spent in urban or other relatively more developed areas, the indirect effects may spread in some degree to other areas.

¹⁰ One difficulty of analysis is that data generally relate to hotels, which are almost certainly the most capital-intensive part of the tourist sector. Comparisons with other sectors would no doubt be more favourable if other service industries associated with tourism, for which relatively little capital is required, were also taken into consideration.

Although the impact on employment and income increases with the average daily expenditure of visitors, it must be viewed in relation to the greater investment cost of hotels and other amenities that the higher-spending visitor uses. A subject which would merit investigation in countries where importance is attached to the employment effects of tourism is the relative size of the employment created per unit of investment for, or per unit of domestic product generated by, different categories of visitors.

Chapter III

Policies and institutions for tourism

36. Given its significance to the economy in many cases, Governments seeking to promote tourism should frame suitable policies, as they do for other sectors. Where appropriate, they should integrate tourism into their general economic and social planning, and at the very least consider whether the general policy measures applied to the economy, and the associated institutional framework, are adequate for the particular case of tourism. As a service activity, tourism has generally taken second place in economic planning, after productive sectors such as agriculture and manufacturing.

37. The studies undertaken by the UNCTAD secretariat show that, as a general rule, the authorities were not sufficiently prepared for, and indeed were surprised at, the great upsurge of travel to their countries, and their own programmes nearly always lagged behind the progress of private initiative. Lack of, or insufficient, co-ordination by the authorities of the activities of the main tourist industries (hotels and transport) and related services, and recourse to only fragmentary and unsystematic programmes, appear to have been common features at the initial stages of the development of tourism, and it is only in recently formulated development programmes that a more comprehensive approach is evident.

A. PUBLIC POLICIES FOR TOURISM

1. *Investment by the State*

38. On the whole, it seems that private interests have been mainly attracted to the most popular and well-established localities and regions, where the commercial risks were smaller and the chances of quick gain greater. They have been less adventurous in pioneering and opening up new areas without some form of incentive. Hence, the State itself may find it desirable to undertake investment where private interest is lacking—at least until, by the success of its own example, such interest can be awakened.

39. Direct State investment played an important role in Greece until the mid-1950s, and in Tunisia most investment in hotels was carried out by the public authorities when the development of tourism first became an official objective in the early 1950s. Progressively, however, private investors have taken over and now account for the major share. Another form of investment by the State is participation in joint ventures with private investors. Particularly at the early stages of a tourism development programme, such equity participation by the State (generally a minority one), whereby a public agency takes the initiative in seeking out private investors, can increase the confidence of the private sector, while at the same time it is a means for the Government to influence the pattern of investment.

2. *Incentives for private investment*

40. Because the returns on hotel investment are uncertain and give rise to problems of financing (particularly on account of the high share of short-term funds in total loan capital and of a possibly inadequate cash

flow), it may not be inappropriate to provide various kinds of incentive to private investment. However, due regard must be had to their cost in terms of tax revenue forgone and of the budgetary and other resources which could—in the absence of fiscal concessions—have been devoted to other purposes. The possible benefits must be carefully examined before particular measures are approved, so as to ensure that the extent of the fiscal or other concessions is fully justified.

41. The most widespread form of assistance to the tourist industry is the provision of credit, since one of the principal difficulties facing hotel investors is the obtaining of loan capital on suitable terms, especially as regards the repayment period and the rate of interest, in a way which preserves a satisfactory debt-equity ratio.

42. Since new hotels, especially if situated in less well-known regions, experience particular financial difficulty in the initial years of operation (before they reach satisfactory occupancy rates), official credit schemes often include provision for a grace period before repayment begins. The terms can also be differentiated in favour of those regions where it is desired to stimulate investment. In this way, too, public loans need not be provided for projects in regions where investors can obtain finance with relative ease from private sources. The rate of interest to be charged is a matter which should be considered in the light of market conditions and of loan facilities granted to other sectors of the economy. Though circumstances vary from country to country, a subsidized rate of interest may be a less important feature than the long-term nature and other conditions of the loan, compared with credit obtained from private sources.

43. Fiscal concessions can be granted to tourist enterprises, as appropriate, in the same way as to other enterprises which enjoy special privileges on account of their potential contribution to exports and to economic development, and like official credit can be applied selectively. Many countries (among which may be mentioned Jamaica and Ceylon, as well as France among the developed countries) apply tax holidays or other fiscal concessions to hotel investment. On the other hand in several countries, both developed and developing—and notably in Spain, Greece (until fairly recently), and Mexico, as well as in Hawaii—there has been a rapid development of tourism with few, if any, incentives of a fiscal nature. The experience of these countries, and the uncertainties regarding the efficiency and ease of administration of certain schemes, point to the desirability of a careful study of the costs and benefits of particular schemes applied to tourism, before they are adopted.

B. MACHINERY FOR IMPLEMENTING A POLICY FOR TOURISM

44. Traditionally, the role of the Government has tended to be confined mainly to the promotional aspects of tourism and there has been little emphasis on research into the effects of tourism on the economy or into the type of tourism appropriate to particular countries. As regards policies for the development of tourism, it was not sufficiently appreciated that, since the (sometimes conflicting) interests of different departments and ministries had to be taken into account, as well as the interests

of different private groups associated with tourism, a comprehensive approach was necessary. In these circumstances, such public or publicly supported tourist bodies as those responsible for advertising and publicity abroad had neither the status, range of functions nor level of responsibility which would permit them to influence either the formulation of tourism policy or the activities of different departments which directly or indirectly affected tourism.

45. With the increased realization that Governments needed to be concerned not only with the demand for but also with the supply of services for tourists, and in view of the growing commitment of public funds in this respect, a strengthening of the machinery has been found necessary, and has been effected in many countries, both developing and developed.

46. The precise form of organization for tourism, as regards both policy formulation and implementing policies and specific programmes, clearly must vary from country to country, according to the importance of tourism to the economy and according to the structure of the public administration, which itself changes from time to time. The UNCTAD secretariat's four country studies illustrate the diversity of the possible forms of organization for tourism and of the questions of co-ordination and policy implementation that arise.¹¹

47. Whatever the nature of the responsible body, it should be endowed with sufficient authority to represent the interests of tourism when decisions affecting tourism are taken, to initiate proposals, and to advise departments on questions of tourism within their respective fields of competence. It must also ensure, directly or indirectly, the implementation of government policies and programmes. Such a body should also serve as the focal point for consultations with commercial and other enterprises and associations concerned with tourism and for receiving and reviewing proposals that may be made by them.

48. A special Ministry of Tourism would not, however, seem to be an urgent necessity in most developing countries, unless tourism is of vital importance and unless any alternative arrangement would fail to ensure sufficient budgetary and staffing resources. It entails the risk of increasing the budget and of imposing a bureaucratic structure beyond the country's real need.

49. The establishment of an autonomous entity (frequently a tourist development corporation or similar body) has been found particularly desirable in cases where there are close links between the public and private sectors and the regular administrative procedures of a government department would hamper the efficiency of financial and other operations that depend on quick decisions in response to changes in market conditions.

Chapter IV

Resources for tourism and their utilization

50. The UNCTAD secretariat's country studies, and the experience of other countries, indicate that as a

general rule the authorities did not initially examine their countries' natural and other tourist assets and so did not draw up plans for building up tourism around them. They did not pay sufficient attention to long-term planning, including physical planning, by which the use of land for tourism and other purposes could be harmonized and uncontrolled development, disfigurement of the landscape, pollution and other undesirable effects on the environment could be avoided.

51. A careful survey of the natural and other resources of value for tourism would serve to identify those regions or areas which are most suitable for tourism and the type of visitor that they are likely to attract. It must, however, be borne in mind that the potential tourist attractions are not commercially exploitable unless residents of other countries are willing to incur the financial and other costs associated with a visit to these areas. Hence the type of tourism for which a country may offer a potential attraction must be determined in the light of present and foreseeable trends of travel to the larger geographical region of which it is a part, especially in so far as it may have to share the market with neighbouring countries.

52. It is primarily the potential of natural assets which many developing countries possess, and which satisfy the recreational and leisure needs of travellers, that must be assessed—i.e. on the one hand the coastal and other natural attractions and, on the other, possibilities of general sightseeing. These are the two principal purposes of leisure travel to most countries. Visits to family and friends, and in general visits based on personal ties, constitute a much smaller share of the total tourist traffic from developed to developing countries than of travel among developed countries themselves.

A. FRAMING A GENERAL PLAN FOR TOURISM

53. Once a general assessment of potential has been made, there exists a basis for drawing up a general plan for tourism and for determining priorities. An inventory of a country's tourist assets, identifying those localities and regions where they are to be found, should be as detailed as possible, but at the same time it must be appreciated that not all the assets will be of equal interest to the foreign visitor.

54. Priorities will have to be assigned, since the potential tourist resources cannot all be developed at once. The selection of priorities may be facilitated by the existence of certain areas favoured by tourists or of certain kinds of tourism which are a feature of the country's tourist traffic. Investment in these areas may thus be the most appropriate solution, if there are evident market prospects, since it will lead to economies of scale, particularly as regards the infrastructure. Investments in new regions may be envisaged, if they open up possibilities of new types of tourism for which there is an evident and perhaps more promising potential, or even if they are intended for much the same tourist market but aim at spreading the benefits of tourism to other regions. In fact, the preparation of a master plan for tourism, related to a general physical plan, not only provides a broad framework for important long-term policy decisions in such fields as infrastructure

¹¹ See in particular, part two of the study on Israel (TD/B/C.3/89/Add.1).

investment but also places the public authorities in a stronger position when considering proposals for major schemes by private developers.

55. Since the public funds which can be made available for tourism are necessarily limited, a balance must be struck in their allocation to new and to existing regions, taking due account of national considerations and the objectives of tourism policy.

B. TOURISM AND PHYSICAL PLANNING

56. It is important to link an over-all plan for tourism to general physical planning. On the one hand, tourism can be related to and harmonized with industrial and other activities, particularly at the regional level, and, on the other, such planning can make provision for the orderly development of tourism itself, by delineating the areas and zones which are reserved for this primary purpose, laying down for them standards of building density and allocating land to different types of residential, industrial and commercial building, open spaces for recreation, etc. Conflicts of land use may thereby be avoided or solved before there is a *fait accompli*. Regulations should take due account of the various types of visitor that may be expected and may cover such matters as the maximum height and density of buildings and, in the case of coastal resorts, their distance from the sea front.

57. The problem of balance and of alternative uses may be particularly acute where, owing to the level of economic development reached in the region or a particular locality, or for purely geographical reasons, the land area available is relatively confined, as in the case of the coastal strips in Jamaica that are adjacent to the island's capital.¹²

C. LAND USE AND LAND VALUES

58. Although the rising values of property as tourism develops and demand for suitably situated land presses against a limited supply, reflecting the normal workings of market forces, serious distortions, with detrimental effects on tourism, can arise from speculation in land. Experience in both developed and developing countries suggests that there is no easily applicable and universal solution to the problem of land speculation. Zoning and reserving for specific uses ensures that land essential for tourism is not diverted to other uses, but by the same token it excludes the possibility of increasing supply by conversion from other uses. Imposing a ceiling on the total available supply for tourism may thus even have the adverse effect of encouraging speculation. Fiscal measures, whereby undeveloped land and capital gains from the sale of land are taxed, offer one possible way of discouraging speculation, subject to the important proviso that they can be effectively administered.

59. Where the land in question is publicly owned, governments are free to lease or sell it having regard to broader social considerations, but the terms should

reflect the higher value to the community of the land in its new use. The equivalent price or rent of private land may provide an approximate yardstick. By renting rather than selling land, the public authorities can derive additional current revenue from the growth of tourism.

60. Public authorities are often confronted with requests from private developers for an outright grant of publicly-owned land or for its sale or lease on concessional terms; or else they feel obliged to offer such inducements in order to secure the participation of private capital in projects which they seek to have implemented. Such concessions, amounting to a subsidy to encourage investment, ought to be regarded as exceptions, and the authorities should first be convinced that the concessions are essential and that there is no risk of speculative gains to the beneficiaries.

Chapter V

Accommodation

61. One of the main features that emerge from the UNCTAD secretariat's country studies is that the supply of accommodation generally failed to keep pace with the growth of demand and that the principal constraint on the expansion of tourism was on the supply side. The problems relating to the provision of accommodation therefore merit special attention.

A. PLANNING FOR DIFFERENT TYPES OF ACCOMMODATION

62. With longer holidays and rising incomes of the population, and with the growth of inclusive tours and in general of traffic on unscheduled services (charters), a travel market has developed in Europe, and to some extent in other regions also, which is no longer confined to persons requiring high-class and luxury hotel accommodation. Moreover, ever-increasing travel by private car has stimulated the provision of new forms of accommodation (such as camping and other "supplementary" accommodation) that ensure independence of movement and relatively inexpensive holidays for family groups.¹³

63. In a number of tourist areas along the northern Mediterranean, individual hotels are giving way to larger, self-contained units such as holiday villages and tourist complexes, where accommodation, restaurants, sports, entertainment and shopping facilities and all other services necessary for tourism are combined in a single site and laid out in accordance with a preconceived design. Developing countries in other regions (notably the eastern Mediterranean and the southern Pacific) are also planning for this type of tourism, which is proving attractive to promoters and is often associated with the sale of individual plots for holiday homes.

64. In most developing countries outside Europe, however, it is the traditional hotel form of accommodation that predominates, largely because tourism in these

¹² In Jamaica, as also in Yugoslavia (Adriatic coast), long-term physical plans, with particular reference to the requirements of tourism, have been drawn up with assistance provided through UNDP.

¹³ For use of the terms "professional" and "supplementary" accommodation, see *Elements of tourism policy in developing countries*, para. 176 and the related footnote.

countries is still at a relatively early stage, based mainly on business travel and on visits by persons in the higher income groups who arrive by air and are accustomed to certain hotel standards. Investment in hotels of this type has also appeared more profitable and less risky than investment in lower-grade accommodation, particularly in developing countries. Where tourism has made greater strides, supplementary accommodation, particularly in the form of holiday villages and tourist complexes, has nonetheless expanded significantly in resort areas.

65. Obviously, the characteristics of visitors must be taken into account in determining the types of accommodation that are necessary and the proportions of each. For countries at an early stage of tourism development the projected pattern of tourism (and hence of accommodation) is likely to differ from the existing one and would need to be based on market research and special studies concerning trends of travel to the regions in question. For many such countries, however, it is reasonable to assume that, in any case initially, the main demand will be for hotels.

66. Important as it may sometimes be to begin with high-class accommodation, as a preliminary to establishing a country in the world tourist market, the possibilities should nonetheless not be ignored of investing in an appropriate proportion of medium-grade, or less luxurious, accommodation, suited to the more typical visitor who is now able, through group tours and other arrangements, to undertake inter-continental holiday travel.

67. Indeed, the experience of a number of developing countries suggests that, unless appropriate policy measures are taken, there may result too great a concentration on higher-class hotels, even though there is a clear potential for accommodation of a slightly lower grade.

68. The number of hotel or other rooms needed to satisfy demand depends on the ratio of single to double rooms that is considered necessary or desirable, which in turn is a function of both demand and supply, and hence varies from country to country. The general tendency is toward a high proportion of double rooms, for reasons of relative cost and efficiency with the result that national plans generally assume a bedroom ratio approaching 2:0 (see also paragraph 76 below).

69. If the seasonal pattern of demand affects the profitability of investment, every effort must be made by the tourist trade, with appropriate support from the public authorities, to induce additional off-season customers that bring in extra revenue over and above the extra cost of providing services for the visitors. Such measures can include substantial reductions for hotel rates and tour excursions, etc., backed by suitable publicity aimed at persons (including residents of the country) who can travel outside the main season and stressing the advantages not only in terms of cost but also of less congestion and better service during off-season periods.

B. HOTEL OPERATING COSTS AND PROFITABILITY

70. Many factors determine the profitability of a hotel operation, but among these the average rate of occupancy is the most important. A hotel should reach

at least that average annual rate of occupancy which corresponds to its "break-even" point—i.e. the level below which there would be actual losses—plus an acceptable rate of profit. It is therefore necessary to determine operating costs at different levels of occupancy, and for this purpose one has to know the breakdown of costs by category of expenditure by the establishment and, within each category, the proportion of fixed and variable costs to the total (since the former are independent of the occupancy rate).

71. In some cases, however, profits may be too small or losses may be incurred, in spite of a relatively high occupancy rate, because of excessive operating costs. Investigation may disclose ways in which they can be reduced without affecting the standards of service expected from a hotel of the particular grade and type (for example, through improvements in organization and by rationalization).

72. Because of the personal nature of hotel service, managerial skill is of fundamental importance, and the short-term control of expenditure, which largely governs profitability, depends a great deal on the competence of the manager; such skills are frequently lacking in developing countries. Until recently, most hotels were operated by the corporations or individuals that invested in them and these were not necessarily skilled in the techniques of hotel operation. Vocational training for hotel staff, particularly in developing countries, was thus of prime importance, especially for managerial and other executive positions. Latterly, there has been a tendency to divorce hotel operation from hotel ownership, frequently involving arrangements with specialized operators in developed countries. Such arrangements with international hotel chains and with specialized hotel management services, where they are necessary, should also make adequate provision for vocational training with a view to the eventual replacement of expatriate staff by nationals. A related question, which would merit further study, is whether, having regard to the interests of all parties concerned, the commitment to foreign capital or management need be as extended as the usual 20 years.

C. HOTEL INVESTMENT AND ITS FINANCING

1. Investment costs

73. The initial capital cost per room largely determines the rate which must be charged to visitors if the hotel is to earn a satisfactory return.¹⁴ Careful attention must therefore be paid to the various components of the capital cost, more particularly when they appear to be out of line with potentially chargeable room rates. There are some elements of cost, including techniques of construction, over which Governments and investors can exercise some control, but in the last resort the irreducible cost of construction may determine what types and grades of hotel are viable. For example, when

¹⁴ There is a rule of thumb in professional circles to the effect that with normal occupancy a satisfactory return involves a room rate corresponding to about one-thousandth of the investment cost per room.

Tunisia first started a major programme of investment in tourism in the late 1950s, emphasis was laid mainly on rather high-class, even palatial, establishments, but experience showed that these could not pay their way, given the average expenditure of visitors to Tunisia, and subsequently official policy favoured investment in less costly accommodation.

74. It is generally considered that the cost of a hotel site should not exceed 10-20 per cent of the cost of the building itself; if it does, capital charges will be too high and the whole project, given the possible level of room rates, will not be viable. Choosing a correct location in relation to the market, on the other hand, is perhaps the most crucial decision affecting the success of a hotel investment project.

75. In many countries the tendency is towards the construction of bigger hotels, with a capacity that may range from 200 to 1,000 rooms, depending on the locality and on the nature of the tourist traffic. This trend reflects the influence of several factors, and in particular the increasing scale of operation of the tourist industry and the need to accommodate large parties on organized tours.

76. Relatively more single rooms are needed (if the aim is to maximize bed occupancy) where business travel predominates. The tendency in several countries is to build new hotels wholly, or almost wholly, with double rooms, generally on the grounds that the difference in construction (and servicing) costs between a single and a double room is small compared with the difference in revenue from single and double occupancy.

77. Where the cost of building materials and equipment and the choice of building technique are critical elements, the selection of excessively expensive materials and equipment—and particularly higher-cost imported items—must be avoided, subject to due regard for efficiency. Possibilities of using standardized equipment, and prefabricated units, and recourse to other modern techniques of construction, should also be borne in mind. There appears to be considerable scope here for an international exchange of experience.

2. *Financing and stimulation of investment*

78. In view of the competing claims on resources and of the over-all budgetary and financial constraints that generally confront developing countries, domestic financial resources for investment in the tourist sector can be usefully supplemented by finance from abroad, on appropriate terms and conditions. By and large, the pros and cons of foreign investment in general in developing countries should be applicable, *mutatis mutandis*, to the tourist sector. However, with some important exceptions, foreign capital is not generally so prominent in that sector as to constitute a controlling interest or impinge on the power of Governments to determine and implement their policy regarding tourism. On the other hand, what may give rise to public concern are the alienation of part of the land, through its purchase by non-residents for the construction of holiday apartments and villas or second homes, and the inaccessibility to residents of stretches of the coast or other natural assets which are leased to foreign developers.

79. Bilateral or multilateral official finance takes the form either of loans to, or other forms of participation in, development finance companies or similar institutions that lend for, or take an equity in, hotel investment, or else of straight participation together with other domestic (and often also foreign) investors in the financing of a particular project. In particular, the IBRD group (principally through the International Finance Corporation (IFC)) and more recently the regional development banks, whose lending in this field was formerly limited to infrastructure works, now join with private capital in financing hotel and other projects.

80. Investment by hotel corporations, particularly in higher-class accommodation, beyond the confines of the national frontier began to assume major importance only during the 1960s. Often the hotel corporations themselves have only a minority holding, in particular where their participation has been sought mainly for the sake of securing management services, access to their world-wide reservation systems and sales services, training of domestic staff, and planning and design of projects.

81. Apart from the traditional foreign sources of funds, various other concerns, such as airlines, travel agents and tour operators, and holiday clubs, are increasingly taking an interest in the possibilities of investing abroad. Five European airlines, with backing from private financial institutions in each of the countries concerned, established in 1969 a European Hotel Corporation, and a multinational corporation was established in 1970 to develop hotel and other facilities in West Africa, 51 per cent of whose capital was contributed by Air Afrique (itself a multinational airline) and the rest by thirteen African Governments. These tendencies reflect the increasing concern of carriers and of others engaged in the travel business that there should be enough accommodation of the right kind, as well as the increasing vertical integration of the industry.

82. One of the main reasons for the unsatisfactory financial results of hotels in many developing countries appears to be the heavy burden of financing the original investment, as a result of the high rate of interest charged on long-term loans. To this must be added in many cases an unsatisfactory capital structure of the hotel enterprise, where the proportion of equity capital is too low and recourse is had for fixed investment to short-term borrowing at even higher rates.

83. In such cases there may well be a need for official credit schemes. At the same time, the volume of loan funds that the public sector can provide, and the question whether such schemes are essential, given competing claims for official credit, need to be carefully considered in the light of all the circumstances. The experience of both developing and developed countries has not been uniform. Thus, it was observed in the UNCTAD secretariat's study of Mexico that official credit had played only a minor role in financing hotel investment, and its role has also been negligible or non-existent in the boom in hotel construction in Hawaii, as well as in Kenya. On the other hand, some of the investment undertaken in Greece and Israel, for example, and in several other developing as well as developed countries, might not have taken place but for the availability of official credit

with repayment periods (including often grace periods) and other conditions not obtainable in the "market". The fact that the State is willing to lend up to a certain proportion of the total investment cost may also have a favourable psychological effect in encouraging private risk capital. Credit schemes can be applied (in the same way as by fiscal measures) so as to exert some influence on the distribution of investment, both geographically and by type and grade of accommodation.

84. The main considerations in relation to official hotel credit schemes are: the total volume of funds that can be made available; whether or not an element of subsidy in the rate of interest charged is justifiable; and avoiding an excessive grant of credit where sufficient loan capital is likely to be available from private sources, particularly for major projects that can absorb a large part of the total credit available under the scheme.

Chapter VI

Infrastructure for Tourism

85. Infrastructure services are indispensable to the progress of tourism no less than to that of industry, agriculture and other sectors. The arrival of foreign visitors presupposes the existence of airports, seaports and other terminals, and of roads, and their mobility inside the country depends on roads and other transport links. Wherever they stay or go, they use public services and raise the total consumption of water, gas and electricity, particularly at peak hours and seasons.

A. GENERAL AND SPECIFIC INFRASTRUCTURE

86. A distinction can be made between the general infrastructure and that which is specific to tourism, the criterion being essentially whether the investment in question has been induced or necessitated by tourism—in other words, whether it would not otherwise have taken place. The general infrastructure consists principally of the national network or distribution systems for transport, electricity, water, telecommunications, etc., without which the corresponding basic public services would not be available to any class of consumer. It serves the tourist sector only incidentally, and related investment projects are not intrinsically designed for tourism.

87. The most obvious kind of infrastructure designed specifically for tourism is that connected with the comprehensive tourist development of a particular zone or region, built up around a coastal strip or other natural asset that has remained virtually unexploited. In such cases, the public authorities generally undertake all the necessary capital works in connexion with the establishment of one or several resorts, including the mains system for water and electricity and the provision of both internal and access roads and other means of communication, as a prelude to investment in hotels and other amenities by private or public developers.

88. The growth of demand in a region where minimum infrastructure facilities already exist can initially be satisfied through their more intensive use and minor improvements and extensions, but eventually the existing capacity comes under excessive strain and the further

growth of tourism is prejudiced unless appropriate new investment projects are undertaken. Within certain limits, on the other hand, the experience of countries which have witnessed a rapid growth of tourism in the last decade suggests that shortcomings of the infrastructure are a less serious constraint on the growth of tourism than are shortages of accommodation. The supply of water, however, may be an important exception in some cases, particularly in developing countries where known groundwater resources are limited, and the consumption by foreign visitors then aggravates the water shortage.

89. More generally, however, demand by the tourist sector may make it possible to envisage investments that might not otherwise be viable, since *per capita* demand for water by visitors tends to be higher than that of the resident population. Even where the cost of water is high or there is a shortage of supply, visitors are relatively insensitive to waste or the need for economy.

B. TRANSPORT INFRASTRUCTURE

90. A large and growing volume of airborne tourism to regions distant from the capital of a country cannot be envisaged without the establishment of suitable international airports. As the experience of various touristically developed countries shows, regional airports have had to be built or expanded in order to cope with the growth of charter and other services and they have been essential for the further development of tourism to these regions.

91. In contrast to airports, maritime ports are not usually predominantly designed for passenger traffic. However, as has been the experience in the Caribbean, for example, deep harbours (and special passenger terminals) may be needed for the largest ocean-going passenger vessels or simpler berthing facilities may be required in certain places specifically for smaller passenger vessels. Special berth and passenger reception facilities may also be necessary in connexion with car-ferry services, such as those which are increasingly being provided in the Mediterranean region.

92. The importance of roads for international tourism is naturally greatest for receiving countries neighbouring on countries of origin of the tourist traffic and in cases where the distances involved are relatively short. However, even in developing countries that depend mainly on visitors who arrive by other means, daily and longer circuits from the main centres are organized for groups by bus and coach or are undertaken individually in hired cars, so that minimum standards of comfort and security must be assured. Visitors must also be able to reach their coastal or other destination from the airport.

93. In general, the stimulation of tourism is unlikely to be a determining factor in economic decisions concerning the construction, widening and general improvement of trunk roads. International highways such as the Pan American highway, the Asian highway and the proposed Trans-Sahara highway, can promote tourism among a group of countries by facilitating the movement of vehicles and rendering potential tourist regions more accessible. However, tourism is unlikely to be the primary reason for building such roads. There are, on the other

hand, circumstances in which the decision to construct or improve certain roads or road sections is governed almost exclusively by considerations of tourism.

C. COSTS OF INVESTMENT IN INFRASTRUCTURE FOR TOURISM

94. In considering the return on investments in infrastructure for tourism, a number of questions arise. First, certain benefits which should be taken into account are not easily measurable. (For example, it is difficult to say at just what point failure to relieve road congestion deters visitors). Second, while without certain investments in infrastructure a country may forgo a rise in income from tourism, these are not the only investments necessary; accommodation and other amenities are also part of the total investment cost of an increase in national product due to tourism. Third, as already mentioned, some of the requisite investment is not for tourism alone.

95. An over-all cost/benefit approach can be more meaningful in the context of a tourism programme for a specific region or area than for general infrastructure, since it can be related more directly to the expected increase in tourism, specific projects can be appraised, and costs often apportioned to tourism.

96. The outlays involved in building an infrastructure for tourism can be considerable. As a broad order of magnitude it would appear that, particularly for countries starting from a low tourism base, they may amount in the medium term to as much as 20-30 per cent of the cost of accommodation, and in some cases much more. Consequently, and in view of the general dependence on public sector financing, it is particularly important that the investments should bring in the maximum possible return:

(a) By concentration in selected regions or localities in which tourism is encouraged ("cluster development"), thus lowering the unit costs of the services provided;

(b) By due attention to the phasing of investments, especially in the case of large investments in airports, roads and the like; and

(c) By spreading the benefits so far as possible to other users.

Arrears of infrastructure in tourist areas usually reflect a similar situation prevailing in the rest of the economy also.

97. It is especially important that the timing of road construction for tourism be carefully examined and that the possible cost to the economy of postponing such works, in favour of less expensive projects, be realistically evaluated. Pending the execution of major works, various palliative measures can be taken to satisfy the most pressing needs.

98. While seasonal and other peaks are a feature of all road traffic, tourist roads generally have the disadvantage, in comparison with the main road system, that they are intensively used for short periods only (during the peak holiday season). How far should they have priority over more general-purpose (especially urban) roads that are more fully utilized throughout the year?

99. The questions of phasing investment and of the limits of capacity are particularly relevant for transport terminals such as airports. If new or improved services are provided too soon there will be spare capacity for some years and the facilities will run well ahead of the accommodation and other services in the region served. By contrast, if the investment is too long delayed there will be deficiencies and passenger discomfort which impede the further growth of the tourist traffic.

100. In considering the phasing of investment in airports, it is important to examine not only possible constraints on aircraft movements but also other possible constraints. It may be, for example, that the real constraint on traffic movement is not the inadequacy of the airport installations themselves but congestion at the terminal building (customs and immigration control, baggage handling, etc.). In such cases, better organization or an increase or training of staff, without any major capital expenditure, may improve the situation.

101. Even when specifically occasioned by tourism, infrastructure costs can often be shared with other users and the unit cost of the services provided possibly reduced if the prospective demands of other sectors are also taken into account. This is the case for certain tourist roads and also for ports.

102. However, sometimes the full cost of infrastructure investment has to be absorbed almost entirely by the tourist sector alone, and there is then a greater risk that it will be prohibitive. Examples are certain road projects, and in particular roads leading to sites and localities of special tourist interest, as well as crest or other panoramic roads that have little other purpose than to permit travellers to enjoy the view. In developing countries which are heavily dependent on tourism by private car it is possible that these costs may be justified by the volume of tourist traffic the roads will carry and the additional income generated. In others, however, the value (and urgency) of such investment is *prima facie* more questionable. What matters, moreover, is not so much whether visitors prefer the panoramic road to the existing roads (unless they thereby de-congest those roads), as whether the new road attracts visitors who would not otherwise come to the country at all or else causes them to stay longer.

D. FINANCING AND EXECUTION OF INFRASTRUCTURE WORKS FOR TOURISM

103. The provision of an infrastructure for tourism cannot be divorced from the wider context of the provision and financing of infrastructure services for the economy as a whole. In most countries the public sector tends to have the principal, or exclusive, responsibility for providing such services, either as a matter of policy or because the services are provided for the general benefit, and individuals who are unwilling or unable to pay for them cannot contract out. Much of the infrastructure related to tourism is of this nature.

104. Whether the services are provided by the private or by the public sector the cost is the same, in terms of resources used. However, private investors look only to the financial return on a (revenue-producing) project, whereas the public sector can take that broader view

of social costs and benefits which is desirable in determining priorities in, and the location and timing of, infrastructure investments. Furthermore, planning for tourism within a general physical planning framework, with the aim of achieving an optimal use of land, water and other resources, implies that the infrastructure should be integrated with physical planning and that its location be in part determined by the requirements of tourism.

105. Infrastructure of tourist interest that is to be financed by the public sector has to compete for funds with other publicly-financed infrastructure, but in appropriate cases domestic resources can be supplemented by external finance from international lending agencies such as the IBRD group and the regional development banks, or through bilateral arrangements (including grants). Such projects may be undertaken largely on account of tourism or may be more general projects of which the tourist sector is one of the beneficiaries. Furthermore, apart from making its traditional loans for the building of the general infrastructure, the IBRD group is prepared to assist in the financing of comprehensive tourism development schemes, an important share of the total cost of which, as was seen above, is accounted for by investment in the infrastructure. A number of proposals in this connexion, which have been the subject of feasibility studies, have been approved or are under consideration.

106. One difficulty in many countries is that responsibility for providing infrastructure tends to be diffused among different government departments or autonomous agencies or else among regional or local bodies. As in other fields, more than one department or agency may be involved in the supply of a particular type of infrastructure, and hence there is a need for machinery to ensure that at different levels at which decisions are taken and implemented the claims of tourism receive due consideration and that the capacity or location of projects takes due account of the needs of the tourist sector.

107. Since the infrastructure constitutes only one of several elements of the development of tourism that are within the competence of different authorities but usually within the exclusive competence of none, questions arise similar to those discussed above for tourism policy as a whole, and if the machinery for executing the policy is to be effective its terms of reference must cover the provision of infrastructure. Apart from performing its advisory or other functions with respect to the activities of different departments that are concerned with tourism, the national tourist organization or similar body may also directly sponsor infrastructure works that are of a specifically tourist nature, using budgetary or other funds at its disposal for this purpose.

108. Tourism development corporations may similarly act as channels for projects relating specifically to the tourist infrastructure, though their main concern is usually with accommodation and other "superstructure". Likewise, interministerial or other bodies specially constituted in connexion with regional tourism development schemes can play an important role by acting as the central agency for supplying all the infrastructure services, irrespective of the ultimate origin of funds (including multilateral or bilateral loans or grants).

Chapter VII

Conclusion

109. In taking note of the UNCTAD secretariat's report, the appropriate UNCTAD bodies might consider commending it to developing countries in their planning for the development of tourism. In particular, the attention of these countries could be drawn to the following points:

- (1) Where tourism is of sufficient importance it should be integrated into economic planning, taking into account questions of land use, environment and physical planning. At the very least it should be considered whether the general economic and social policies in force cover adequately the particular case of tourism.
- (2) Whatever the nature of the body chiefly responsible for matters relating to tourism, it should have sufficient authority to represent the interests of tourism as a whole and to ensure that due recognition is given to tourism in the formulation of general economic and social policies.
- (3) The planning of the infrastructure in general, within a physical planning framework, implies that the siting of the infrastructure projects be in part determined by the requirements of tourism. The machinery for tourism policy should therefore deal also with the provision of infrastructure services for tourism.
- (4) There should be support for official and private research into the economic aspects of tourism, and in particular into its net benefit to the balance of payments and its incidence on domestic income and employment. In this connexion, efforts should be made, both nationally and internationally, to improve the quantity and quality of data in order to increase the understanding of the role of tourism in the economy and facilitate policy formulation.¹⁵
- (5) Civil aviation policy should pay due regard to the importance of lowering air fares and so reducing the cost of travel in the interest of encouraging tourism.
- (6) Financial and technical assistance is available from the UNDP and the multilateral financial institutions, including the regional development banks. These bodies are now prepared to lend funds for schemes of general tourism development and not simply for infrastructure investment.
- (7) Increasingly the tourist industry in developed countries is becoming vertically integrated. Alone or in conjunction with resources provided by public entities (including international agencies), private foreign investment (both direct and through management agreements) can contribute to the growth of tourism. However, the terms of participation by

¹⁵ For guidelines on the collection of tourism statistics see the annex to this document.

foreign investors must be equitable to all parties, and in general Governments of developing countries should consider carefully whether and to what extent fiscal and other concessions should be granted to private developers, whether domestic or foreign. Outright grants of land to developers, or the sale or lease of land on concessional terms, involve a sacrifice of public revenue no less than do fiscal concessions. Their justification in particular cases should be carefully weighed, and the terms of any concessions should exclude the possibility of speculative gains through sharp increases in land values.

- (8) Particularly because of difficulties in many countries in obtaining long-term loans, there may be a need for official hotel credit schemes. A subsidized rate of interest, however, may be a less important feature of such schemes than the long-term nature and other conditions of the loans. The authorities should avoid an excessive grant of credit where sufficient loan capital is likely to be available from private sources, particularly for major projects.
- (9) Both credit and fiscal measures to encourage investment may be applied selectively, in accordance with predetermined policies concerning the types and geographical distribution of accommodation and other facilities and taking into account the balance between demand and supply, as well as environmental and other relevant factors. Decisions concerning the development of different regions or different types of tourism are facilitated if taken in the context of a longer-term master plan for tourism.
- (10) Outlays on infrastructure necessitated by tourism can be substantial. Hence such investments should be concentrated in selected regions or localities (thus lowering unit costs), the phasing of different stages of investment in major projects such as airports and roads should be carefully studied, and the benefits of the infrastructure necessitated by tourism should be shared so far as possible with other users.

ANNEX

Guidelines for tourism statistics ^a

Both Governments and the private sector need reliable data on world trends in tourism, and information about the way in which these affect different regions of the globe, for the purpose of assessing the potential for expanding tourism in their own countries. Owing to the existing lack of standard definitions and uniform methods of collection, inter-country comparisons and the aggregation of national into regional or world totals are of limited value. Uniform definitions and classifications of data are therefore needed.

No less important, comprehensive and reliable statistics of tourism are a prerequisite for planning the development of the tourist sector in each country, just as are statistics for other sectors. Yet the growing awareness of the travel phenomenon has not, until fairly recently, been matched by a corresponding awareness of the need to measure it in such a way that it is possible to describe the structure and flows of production it involves, and to work out data enabling Governments to appraise the significance of tourism in their own countries and take due account of it in their economic policies and plans.

The *Guidelines* prepared by the UNCTAD secretariat in co-operation with the Statistical Office of the United Nations, IMF, and IUOTO, discuss why national and international statistics of tourism are needed, what kind are desirable and what is practical, the definitions and coverage of the data which should be collected, and the manner of collecting them. One of the three annexes contains the forms which are used by hotels in Spain, Switzerland, Tanzania and Tunisia to make monthly returns of hotel nights and guest arrivals. (The others contain a note on the coverage of the "tourist sector" and a discussion of the present methods of collection and the comparability of national tourism statistics.)

Emphasis is on the hotel or similar accommodation unit as the primary source for procuring statistics. These can cover both the number of visitors and of visitor nights and also information on the capacity and occupancy of hotels, and numbers employed, turnover of the establishment and other data. A full count (either at the frontier or at hotels) can be supplemented (and often replaced) by sample surveys, in order to obtain more detailed information also on visitor expenditure and other items which it is difficult or not justifiable to seek through a full count.

Major recommendations and conclusions are the following:

(a) Statistics collected by a full count at the frontier should include as a minimum:

- (i) Arrivals (or departures) of foreign visitors;
- (ii) Means of transport used;
- (iii) Purpose of visit.

(b) Statistics collected from accommodation establishments should include as a minimum:

- (i) Nights spent by foreign visitors and by residents of the country;
- (ii) Number of foreign visitors;
- (iii) Capacity and rates of occupancy.

(c) In order to obtain the number of visitors and the length of their stay in the country, the hotel registration form should include a question on whether the person is registering for the first time during his present visit.

(d) Information about foreign exchange receipts from tourism can be obtained through returns from the banking system or by sampling of visitors. Expenditure on international passenger fares should be excluded from figures of visitor expenditure, and separate figures for this item should be published where possible.

(e) Information about the average length of stay of visitors can be derived from a full count at the frontier but preferably, and more conveniently, from hotel returns. For averages derived from a full count at the frontier, excursionists and other day visitors should be ignored, as also should long-staying visitors.

(f) In general, the frequency of publication and the degree of detail depend on the kind of information sought, the method of collection used, and on the practical possibilities of the country concerned. As a minimum (and partly because of seasonal variations) it is desirable to obtain monthly data for the total number of visitors, nights spent, and occupancy rates, while for most other data (such as means of transport used, purpose of visit, accommodation capacity and foreign exchange receipts) annual data are normally sufficient.

^a See *Guidelines for Tourism Statistics* (United Nations publication, Sales No. E.71.II.D.9).

(g) As a general rule, all pertinent data should be classified according to the visitor's country of residence or, failing that, according to country of nationality.

The *Guidelines* take into account the practical possibilities in developing countries. All countries should consider adapting their present systems to conform to the *Guidelines*, more particularly developing countries having at present few, if any, suitable statistics

of tourism. Technical assistance could be requested for the practical implementation of the various recommendations, as appropriate, through the UNDP. The endorsement of the *Guidelines* by both UNCTAD and the Statistical Commission of the United Nations should also be considered, and the regional economic commissions and the United Nations Economic and Social Office in Beirut should take appropriate steps with a view to the implementation of the recommendations in their regions.

TRANSFER OF TECHNOLOGY

Report by the UNCTAD secretariat *

[Original text: English]

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* The text of this report was circulated to the Conference as document TD/106, dated 10 November 1971, and TD/106/Corr.1, dated 14 January 1972. It will also be issued separately as a United Nations publication.

Introduction

1. The importance of technical progress for economic growth has long been recognized, but the specific role of transfer of technology from one country to another in stimulating economic development has only recently begun to receive the attention it deserves.

2. Access to advanced technology, wherever it has been developed, is important for the economic development of all countries, independently of their economic and social systems. This applies particularly to the transfer of technology from the developed—both market economy and socialist—countries to the developing countries. An adequate understanding of this transfer process and of the obstacles inherent in it is therefore of special significance to evolving suitable policies for secur-

ing a wider, faster and easier transfer of technology to developing countries. Such transfer already involves a considerable and growing foreign exchange cost for the developing countries. Attainment of the growth objectives of the International Development Strategy for the Second United Nations Development Decade (General Assembly resolution 2626 (XXV)) would call for the transfer of technology on a much larger scale. It would involve a further increase in the foreign exchange cost of financing this transfer.

3. Easy access to technology on reasonable terms constitutes one of the key elements in accelerating the pace of economic and social development of the less advanced countries. This recognition formed the background to the adoption by the Trade and Development

Board of resolution 74 (X), endorsed by the General Assembly in its resolution 2726 (XXV), and to the unanimous adoption in June 1971 by the Intergovernmental Group on the Transfer of Technology of a comprehensive programme of work, to be implemented in UNCTAD on a continuing basis, in the field of transfer of technology to developing countries.¹ The removal of the obstacles to the transfer of, and improving the access to, technology has thus become as much an essential field for fruitful international co-operation as the removal of barriers to the exports of developing countries. This recognition was reflected in paragraphs 37 and 64 of the International Development Strategy.

4. The first chapter of this report touches upon some of the major considerations relevant to multilateral action in the field of transfer of technology to the developing countries.² The foreign exchange costs of transfer and their likely growth during the 1970s are then taken up in the second chapter, which is followed by a brief discussion of the major policy issues in this field.

Chapter I

Transfer of technology and economic development

1. Historical background

5. Technological and social innovations have not always emanated from the countries which are now developed. While the so-called Industrial Revolution was concentrated in Europe (and in the western world in general), many of the major technological advances preceding it took place in areas that are now classified as "under-developed" or "developing" countries.

6. The technological gap between the developing and the developed countries is of relatively recent origin; and the income gap between them is largely a reflection of the technological gap. Even as late as 1850 the technological and economic contrast was not so pronounced as it is now. The economic advance of the now developed countries has thus mainly been achieved in little more than a century. In the process, major additions have been made to the world stock of technological knowledge. An important feature of this stock is its potentially greater ease of transmission. This is in contrast with the technological knowledge of traditional societies, including skills used in pastoral operations, peasant agriculture and crafts.

7. The transmissibility of modern technological knowledge has enormously increased the inter-dependence of countries. There has occurred, as a consequence, a shift in importance between indigenous technological evolution and the transfer of technology from one country to another. Each country launching itself into the modernization of its economy stands partly on the shoulders

of others that have preceded it in this endeavour. This is the main source of the by now well-known "advantage of the late-comers". Their technological perspective is widened by others who have already arrived at modernity.

8. An important consequence of this phenomenon is a steady rise in the growth rate of *per capita* output for each new entrant into the process of modern economic growth. Growth is thus dependent on technological progress. And technological progress is not only a result of indigenous evolution but also of significant transfers across geographical, political and cultural boundaries. The removal of obstacles—economic, political, social, legal and institutional—to the transfer process in turn contributes towards accelerating economic growth.

2. Factors relevant to multilateral action

9. Transfer of technology to developing countries has certainly been taking place, but it is widely considered not fast enough to meet their aspirations of more rapid growth. Apart from this, there is the more visible compulsion of the spread of medical knowledge and the rise in population growth, caused by the dramatic decline in death rates all over the world.³ Much higher increases in total output are therefore needed to achieve the same growth of *per capita* output. But the ability of the developing countries to exploit the fund of world technological knowledge is severely restricted by their historically determined economic and social patterns and by the limitations of the market mechanism in fostering a more rapid transfer of technology. Because of the limitations of the normal channels of commercial transfer of technology, discussed below, there arises the need for multilateral action to supplement the market process.

10. One deficiency of the market mechanism is that private profit calculations of a firm in a developing country cannot take complete account of the social benefits that a nation can derive from the formation of skills as a consequence of an investment involving the transfer of modern technology. Skill acquired by working in a technologically advanced firm is partly a gain for the firm itself, but in addition there are benefits to the person who acquires the skill and also to the economy as a whole, since the skills he has acquired can be used in other productive activities also. Thus, private profit calculations of the firm tend to underestimate the total social gains. There may as a consequence be under-investment in certain crucial fields; or inadequate attention may be paid to rapid training of national manpower and an improvement of the pattern of skills. These deficiencies of the market mechanism can reduce the benefits which can be derived from a given technological transfer.

11. Secondly, in a situation where competition is not perfect and there are elements of monopoly, technical information may be the most closely guarded aspect of modern production, since emulation by others may cut out markets. This is not, of course, to say that the firm

¹ See *Official Records of the Trade and Development Board, Eleventh Session, Annexes*, agenda item 7, document TD/B/365, annex I.

² For a fuller discussion, see *Official Records of the Trade and Development Board, Tenth Session, First, second and third parts, Annexes*, agenda item 14, document TD/B/310.

³ The ease of transmission of and the relative absence of proprietary rights in medical knowledge are among the factors responsible for the more rapid and effective spread of such knowledge.

will not part with its technological information no matter what the price paid for it, but only that the price will have to be relatively high for it to be worth the private firm's while to sell it.⁴

12. Moreover, an enterprise in a developing country needs to have some basic information to seek specific information it needs. It will look for a new production technology and the details of its operation only if it knows that such technology can be obtained on reasonable terms. But such primary information in the field of modern technology is often lacking in the developing countries; and this may darken the prospect of a later transfer of the most suitable technology on the best possible terms.

13. Finally, the fixing of a price for technological information is a difficult exercise, since a prospective purchaser really needs a minimum of basic information before he can know what specific information to seek on a particular technology. This is an inherent impossibility in the market for technological knowledge, which is even more imperfect than that for products. There thus exists neither a world market, nor a world exchange, nor world prices for technology. If prices as a consequence are too high, the cost of the transfer of technology may be excessive; and if the prices are relatively low, the enterprises in the developed countries with the technological knowledge may not in fact enter into a transaction.

14. Apart from these limitations of the market for technology, the developing countries suffer from a special weakness in the transfer process. In relations among the developed countries, the flow of technology is usually in two directions; any particular country is at the same time a receiver and a supplier of technology. This two-way flow generally tends to correct some of the weaknesses of the market mechanism mentioned above. In relations between developed and developing countries, however, the flow of technology is usually in one direction only. Moreover, the financial resources and technical competence of enterprises in a developing country are usually considerably weaker than those of the technology-supplying enterprises of the developed country. As a result, the developing countries are unequal partners in this transfer process. Hence the importance of concerted action at the national, regional and international levels.⁵

3. *Directives of the International Development Strategy and the UNCTAD programme of work*

15. The major advance in the international consideration of the transfer of technology to developing countries which is reflected in paragraphs 64 and 37 of the International Development Strategy, and in the unanimous approval by the Intergovernmental Group on the Transfer of Technology of a comprehensive programme of work,

to be implemented on a continuing basis within UNCTAD,⁶ is to be viewed against the background of the considerations outlined above.

16. The directives contained in paragraph 64 of the International Development Strategy, reproduced below, specify six elements for action:

(64) Developed and developing countries and competent international organizations will draw up and implement a programme for promoting the transfer of technology to developing countries, which will include, *inter alia*: the review of international conventions on patents, the identification and reduction of obstacles to the transfer of technology to developing countries, facilitating access to patented and non-patented technology for developing countries under fair and reasonable terms and conditions, facilitating the utilization of technology transferred to developing countries in such a manner as to assist these countries in attaining their trade and development objectives, the development of technology suited to the productive structures of developing countries and measures to accelerate the development of indigenous technology.

17. The ideas contained in paragraph 37 of the Strategy, quoted below, also cover partly one of the major problems encountered in the transfer of technology:

(37) Restrictive business practices particularly affecting the trade and development of the developing countries will be identified with a view to the consideration of appropriate remedial measures, the aim being to reach concrete and significant results early in the Decade. Efforts will be made with a view to achieving these results before 31 December 1972.⁷

18. These seven elements contained in paragraphs 64 and 37 of the Strategy provide the basic objectives for which specific policies in the field of technology transfer will have to be evolved. A detailed discussion of the ways in which these policies can be elaborated, and of the manner and the possible time-span in which they can be implemented, is therefore necessary. Arrangements should also be made to review progress in the implementation of these policies and to determine the next steps to be taken.

19. The UNCTAD programme of work, referred to in paragraph 15, covers six areas, subdivided into 29 major sub-headings:

I. *Main areas*

- (1) Channels and mechanism for the transfer
- (2) Costs of the transfer
- (3) Access to the technology
- (4) Trade and the transfer of technology

II. *Other areas*

- (5) Substitution of domestic for imported technology
- (6) Choice of technology.

20. Concrete suggestions for the full range of policies in this field to be pursued at all levels—national, regional and international—can be formulated only after detailed studies on the areas mentioned above have made sufficient progress. The UNCTAD secretariat has only just com-

⁴ This is possible as long as other enterprises have not developed the same technology for similar products. Even then, a group of private enterprises may continue to charge oligopolistic prices for the sale of such technological information.

⁵ Action at the national level is a necessary complement to action at regional and international levels, as is explained in chapter III below.

⁶ See note 1 above.

⁷ The work programme of the Committee on Manufactures includes the objective of the Strategy pertaining to restrictive business practices. For details, see the report of the Committee on its fifth session (*Official Records of the Trade and Development Board, Eleventh Session, Supplement No. 2 (TD/B/352)*).

menced its work on such studies. A detailed questionnaire, aimed at identifying the obstacles to accelerated transfer of technology to the developing countries, has been addressed to States members of UNCTAD.⁸ The replies, some of which have already been received, can be expected to furnish a basis for the formulation of appropriate policies. A preliminary study, reviewing the channels and mechanism for transfer, was placed before the Intergovernmental Group at its organizational (first) session.⁹ A methodological study, intended to provide guidance to individual countries for the assembly of necessary data in this new field, for analysing the information so gathered and for undertaking an appropriate evaluation of alternative projects, is under preparation. Arrangements are being made for several detailed case studies of countries at various stages of economic development, to supplement the information received in response to the questionnaire.¹⁰ In the meantime, some of the replies to the questionnaire, as well as certain relevant studies undertaken elsewhere, have furnished greater details than were hitherto available of the current foreign exchange cost of transfer, which is discussed in the following chapter.

21. While the formulation of proposals for long-term action obviously must await the progress of the studies referred to above, several areas for action at the national, regional and international levels can already be identified. Since the emphasis in all the deliberations on the transfer of technology to the developing countries has always been on evolving an action-oriented programme, certain proposals are put forward in chapter III as a basis for recommendations by the Conference and fairly immediate action.

Chapter II

Foreign exchange cost of the transfer

22. Transfer of technology is a relatively new subject for both governments and international organizations. Understandably, therefore, there is a serious lack of empirical evidence. Agreed coverage and definitions of the items to be included in the foreign exchange costs of the transfer remain to be worked out. As a result, whatever data are available vary very widely in coverage and comparability. An attempt is made in this chapter to put together some of these data, no matter how inadequate they may be, as a preliminary basis for suggesting an order of magnitude of the current levels of these costs to developing countries. An indication is also given of the possible size of the increase in these costs during the 1970s, if the objectives of the Second Development Decade are to be attained. Obviously, as more reliable and

better information becomes available, these tentative estimates will have to be revised.

23. Foreign exchange costs of the transfer of technology deserve a priority consideration for several reasons. Firstly, they are an important element in the general pressures on the balance of payments of developing countries, which are too well-known to need further elaboration. A clear understanding of the present level of such costs and of their probable growth is thus an obvious prerequisite for adequate planning at the national level and for evolving concerted policies at the international level. Secondly, and in a much more relevant sense, these costs can be taken as a rough and ready indication of the benefits and costs of the transfer to the developing countries. The benefit-cost ratio can be improved by increasing the benefits, reducing the costs, or by a combination of the two. Any measurable movement along these lines will signify improved efficiency of the transfer mechanism. Since foreign exchange costs are the more readily measurable, any relative reduction in them can be taken as an improvement of the benefit-cost ratio —i.e. as a reduction in the unit costs incurred for a certain level of benefits.

1. Coverage of the foreign exchange cost of the transfer

24. The developing countries pay for imported technology in several ways. A complete enumeration is not possible at the present stage, but some of the more readily identifiable ways involving foreign exchange payments are:

- (1) for the right to use patents, licences, know-how and trade-marks;
- (2) for technical knowledge and know-how needed both in the pre-investment and investment stage and in the operation stage;¹¹
- (3) through overpricing of imports of intermediate products and equipment ("hidden" costs or "price mark-ups");
- (4) through profits on capitalization of know-how (acquisition of equity participation in place of other means of payment for transfer of technology); profits on these equity holdings are therefore to be regarded as, in part, payments for the transfer of technology;
- (5) through a portion of repatriated profits of the wholly-owned subsidiaries or joint ventures which do not make specific provision for payments for the transfer of technology;
- (6) through imports of capital and other technical equipment, the price of which usually allows for the exporter's valuation of the cost of technology.

⁸ See "Questionnaire on the transfer of technology, including know-how and patents: note by the UNCTAD secretariat" (TD/B/AC.11/4).

⁹ See "The channels and mechanisms for the transfer of technology from developed to developing countries: a study by Charles Cooper with the collaboration of Francisco Sercovitch" (TD/B/AC.11/5).

¹⁰ These studies will be used in subsequent analyses, together with studies published by other organizations and institutions.

¹¹ The elements of such knowledge are: (a) *pre-investment and investment stage*: feasibility studies and market surveys; choosing among a range of technological alternatives; engineering design and selection of machinery; plant construction and installation of equipment; and process technology proper; (b) *operation stage*: management and operation of production facilities; marketing; and improving efficiency of established processes by minor innovations. For a fuller discussion, see Charles Cooper, *op. cit.*, paras. 19-26.

25. The available information on the foreign exchange cost of transfer of technology to developing countries reflects great deficiencies in coverage as regards payments for the transfer under the six headings described above. It mainly covers only the first two of these headings—that is, payments for the right to use patents, licences, know-how and trade-marks, and for management and other technical services. Even these two headings are, as shown below, not adequately covered in most cases. As far as the other four headings are concerned, the present state of knowledge is very deficient. In consequence, the estimates given below should be regarded as partial and tentative rather than definitive. Because of limited coverage, they are under-estimates in direct relation to the degree of their incompleteness, even for the first two headings for which they are made.

26. The six headings referred to above describe mainly the principal ways in which the developing countries directly pay in foreign exchange for the transfer of technology. These direct foreign exchange costs constitute only an inadequate reflection of the real costs of the transfer process. They take no account of the important question of the costs—or benefits forgone—resulting from the transfer of wrong or inappropriate technology, or from inadequate or delayed transfer, or from the “non-transfer”¹² of technology.

2. *Estimates prepared for the second session of the Conference*

27. A valuable first attempt at estimating the size of payments for the transfer of technology was made in the study prepared by C. H. G. Oldham, C. Freeman and E. Turkcan for the second session of the Conference.¹³ Their estimates related to the “technological balance of payments”, a concept which had been recently developed in OECD.

28. In view of the almost total absence of data in the developing countries, their estimates covered only receipts by private firms in the developed market economy countries as royalties and licencing fees—that is, only the first of the six headings listed in paragraph 24. The coverage, even of this first heading, as clearly stated in paragraphs 26-30 of their study, was very inadequate. For instance, the “technological balance of payments” covered only those transactions, often representing a limited sample, in the private sector of the developed market economy countries, for which a specific payment was made, with separate accounting, for patents, trade-marks, licences and know-how. It excluded mutual barter of technology among enterprises not involving financial flows; payments made by private or public enterprises in the developing countries to enterprises in socialist countries; payments for transfer of technology among developing countries themselves; and payments made by

enterprises in developing countries to the public sector in developed countries.¹⁴ The coverage of transactions which took place between parent and affiliated or associated companies was extremely inadequate, particularly in cases where specific payment for technology was not mentioned in the inter-company accounting.

29. In view of these limitations, the “technological balance of payments” reflected only part of the cost to the developing countries of the transfer of technology in the form of royalties, licensing and other fees. As already stated, no attempt was made to estimate costs under the other five headings listed in paragraph 24 above.

30. It was estimated in the study that the foreign exchange payments by the developing countries for industrial patents, trademarks, licences and know-how amounted to around \$100 million in 1964,¹⁵ or about one-tenth of such payments for the world as a whole.

3. *More recent data on the cost of the transfer*

31. Much more evidence has become available since the highly preliminary estimates prepared for the second session of the Conference. The estimated costs for 15 countries are shown in table 1. The countries include six from Latin America (Argentina, Brazil, Chile, Colombia, Mexico and Venezuela), six from Asia (Ceylon, India, Indonesia, Israel, the Republic of Korea and Pakistan), one from Africa (Nigeria) and two from Southern Europe (Spain and Turkey). The estimates cover in most cases payments under only the first two of the headings listed in paragraph 24 above: (1) for the right to use patents, licences, know-how and trade-marks and (2) for management and other technical services. Even for this limited number of countries the coverage is very inadequate. For instance, payments under each of these two headings could not be shown separately for Brazil, Colombia, Mexico and Turkey and no data are available for payments under the second heading for Chile, Indonesia, the Republic of Korea and Venezuela. Under the first heading there are no data for Pakistan. Moreover, all the data refer to payments by the private sector only. This limitation is particularly serious for India, where the private sector has accounted for only about one-third of industrial investments in recent years. The data shown in table 1 should therefore be regarded as covering only part of the costs under these two headings. The sources from which they have been derived and a description of their coverage are given in the annex to this report.

32. Foreign exchange payments, under either or both of the headings, by the 15 countries shown in table 1 came to an annual figure of \$825 million during the late 1960s. This amount was equal to 5 per cent of their combined export earnings and 0.41 per cent of their gross domestic product (GDP). If data for Spain and

¹² There is a non-transfer of technology when a plant is situated in a country because of that country's particular resource endowment but the elements of knowledge connected with its operation are not transferred to the nationals of the country concerned.

¹³ “The transfer of technology to developing countries, with special reference to licensing and know-how agreements” (TD/28/Supp.1 and Corr. 1).

¹⁴ Moreover, payments made by developing countries in domestic currency were also excluded.

¹⁵ See C. H. G. Oldham, C. Freeman and E. Turkcan, *op. cit.*, paras. 31-33; for estimates of the costs of transfer among the developed countries, see para. 31.

TABLE 1

Payments ^a for technology transfer and their relationship to gross domestic product and exports

Country	Year	Payments for technology transfer			Payments for technology transfer as proportion of			
		Patents, licences, know-how and trademarks (1)	Management and other technical services (2)	Total (3)	Gross domestic product (4)	Exports (5)	Gross domestic product (6)	Exports (7)
		(\$U.S. million)			(\$U.S. billion)		(per cent)	
<i>Latin America</i>								
Argentina	1969	68.1	59.6	127.7	17.8	1.6	0.72	7.9
Brazil	1966-68 ^b	...	59.6	59.6	23.0	1.8	0.26	3.4
Colombia	1966	...	26.7	26.7	5.4	0.5	0.50	5.3
Mexico	1968	...	200.0	200.0	26.2	1.3	0.76	15.9
Chile	1969	8.2	...	(8.2)	5.4	1.1	(0.15)	(0.8)
Venezuela	1969	6.1	...	(6.1)	9.5 ^c	2.9 ^c	(0.07)	(0.2)
Sub-total . . . . .		...	(428.3)	(428.3)	(87.3)	(9.1)	(0.49)	(4.7)
<i>Africa</i>								
Nigeria	1965	19.0	14.8	33.8	4.3	0.8	0.78	4.2
<i>Asia</i>								
Ceylon	1970	0.1	9.2	9.3	1.8 ^d	0.3 ^d	0.51	2.9
India	1969	6.3	42.7	49.0	40.7 ^e	1.8	0.12	2.7
Israel	1961-65 ^b	1.6	2.3	3.9	2.3 ^e	0.3	0.17	1.2
Indonesia	1968	16.4	...	(16.4)	10.5	0.7	(0.16)	(2.4)
Korea, Republic of	1970	2.1	...	(2.1)	5.3 ^e	0.6 ^d	(0.04)	(0.4)
Pakistan	1965-70 ^b	...	100.0	(100.0)	15.7 ^d	0.7 ^d	(0.64)	(14.7)
Sub-total		(26.5)	(154.2)	(180.7)	(76.3)	(4.4)	(0.24)	(4.1)
<i>Southern Europe</i>								
Spain	1968	56.6	76.4	133.0	24.0	1.6	0.55	8.4
Turkey	1968	...	49.1	49.1	11.3	0.5	0.43	9.9
Sub-total . . . . .		...	182.1	182.1	35.3	2.1	(0.52)	(8.7)
TOTAL, excluding Spain and Turkey		...	(642.8)	(642.8)	(167.0)	(14.3)	(0.38)	(4.5)
TOTAL, including Spain and Turkey		...	(824.9)	(824.9)	(202.0)	(16.4)	(0.41)	(5.0)

Note: Parentheses round a figure indicate that the information available is incomplete or relates to somewhat different items or periods. These figures have been included in the totals merely to provide orders of magnitude. Countries in Latin America and Asia have been shown under two separate groups, the top group including those countries for which information is available under both headings as described in columns (1) and (2), and the lower group those for which the available information is incomplete and relates to one only of the two headings.

Sources: See the annex to the present report.

^a In most cases payments relate to the foreign exchange cost (in dollars, at current prices) of the transfer. For further details, see the annex to the present document.

^b Annual average.

^c 1968.

^d 1969.

^e 1963.

Turkey are excluded from the total, the annual figure is \$643 million during the late 1960s, equal to 4.5 per cent of the combined exports and 0.38 per cent of GDP of the remaining 13 countries.

33. In view of the serious deficiencies of coverage for Chile, India, Indonesia, Republic of Korea, Pakistan and Venezuela, these estimates give only a partial picture. If these six countries with inadequate coverage are excluded (and excluding also Spain and Turkey) the foreign exchange cost under the two headings for the remaining seven developing countries was, during the late 1960s, some \$461 million—or as high as 7 per cent of their export earnings and 0.57 per cent of their GDP. If this proportion of GDP is applied to the other six countries in order to adjust the cost data for inadequate coverage, the total costs for the 13 countries (excluding

Spain and Turkey) would seem to be of the order of \$958 million per year.¹⁶

34. The 13 countries of Asia, Africa and Latin America are a relatively small sample of the developing countries. On the other hand, they include nearly all the larger ones and thus account for 65 per cent of the population and about 56 per cent of GDP of all the developing countries taken together. (The coverage is much higher for Latin America and Asia than for Africa.) The *per capita* GDP (\$235) of other developing countries was some 45 per cent higher in 1967 than that (\$160) of the 13 countries covered in table 1. There are no indicators

¹⁶ If data for Spain and Turkey are added, the comparable cost figure rises to \$1,140 million, and constitutes 7 per cent of export earnings and 0.56 per cent of GDP of the 15 countries.

TABLE 2

Relationship between growth rates in payments for technology transfer, in manufacturing output and in gross domestic product for selected countries

Country	Period	Payments for technology transfer		Annual average growth rate			Relationship between growth rates	
		Initial year (1)	End year (2)	Payments for technology transfer (PTT) (3)	Manufacturing output (MO) (4)	Real gross domestic product (GDP) (5)	PTT/MO = (3)/(4) (6)	PTT/GDP = (3)/(5) (7)
		(\$U.S. million)			(per cent per year)		(ratios)	
<i>Developing countries</i>								
Nigeria	1963-65	13.8	33.8	55.0	9.3	4.1 ^a	5.9	13.4
Korea, Republic of ^b	1967-70	0.7	2.1	44.0	28.0 ^c	11.0 ^d	1.6	4.0
Ceylon	1965-70	2.0	9.2	36.0	10.1 ^d	5.6 ^d	3.6	6.4
Argentina	1965-70	35.1	115.8	27.0	3.6 ^e	2.4 ^d	7.5	11.3
Mexico	1953-68	14.7	200.0	19.0	8.5	6.7 ^f	2.2	2.8
India	1959-69	11.9	49.0	15.2	5.8	3.1 ^g	2.6	4.9
<i>Southern European countries</i>								
Turkey	1964-68	6.2	49.1	65.0	21.0 ^h	6.6	3.1	9.9
Spain	1963-69	42.6	133.0	21.0	11.7	6.3 ⁱ	1.8	3.3
<i>Other countries</i>								
Ireland ^b	1963-69	0.2	2.2	49.0	6.6	4.1 ^j	7.4	12.0
Japan	1957-65	...	...	18.0	14.0	9.6 ^j	1.3	1.9
United States ^k	1960-69	175.6	442.3	10.8	...	...	...	...

Note: Countries have been arranged within groups in descending order of annual growth rates in payments for technology transfer.

Sources: See the annex to the present report.

^a 1961-1965.

^b Covers only payments for licences, patents, know-how and trade marks.

^c 1967-1969.

^d 1965-1968.

^e 1965-1969.

^f 1953-1967.

^g 1960-1968.

^h 1963-1966.

ⁱ 1963-1968.

^j Real gross national product.

^k Receipts from developing countries.

of the current level of the foreign exchange costs of technology transfer for other developing countries, but the fact that their *per capita* domestic product is somewhat higher than that of the 13 countries would seem to suggest that these costs would constitute the same (or perhaps an even higher) proportion of their GDP. A tentative estimate of these costs for all developing countries may be constructed by assuming, on an arbitrary basis, of course, that these costs formed about the same share of GDP—that is, 0.57 per cent—as for the 13 countries (see paragraph 33). On this assumption, payments by the developing countries not covered in table 1 would have been of the order of \$750 million in or around 1968. Even if it is assumed that the costs for these countries constituted a lower share, say 0.38 per cent, of their GDP (or one-third below that for the 13 countries), the estimated amount would come to \$500 million. The costs can thus be estimated to range from \$500-\$750 million.

35. On these assumptions the total annual foreign exchange payments by developing countries for the transfer of technology under two of the six headings listed in paragraph 24 above must have been in the range of \$1,458-\$1,708 million in or around 1968—or in round figures some \$1,500 million.¹⁷

¹⁷ According to the information supplied in reply to the questionnaire on transfer of technology addressed to Governments by the

36. As is clear from the discussion in the preceding paragraphs, this figure is an under-estimate of the total cost, and represents no more than a broad order of magnitude. Even though it covers only two of the major cost items, its significance may be readily appreciated when compared with some other magnitudes. It was equal to: 5 per cent of the exports of the developing countries (excluding the major oil exporters) in the same period; two-fifths of their debt servicing costs; and about 56 per cent of the flow of direct private foreign investment to developing countries (including reinvested earnings).¹⁸ The proportions would be considerably higher if estimates were available under all six headings listed in paragraph 24 above.

37. Much more intensive research remains to be done in preparing estimates of foreign exchange payments under the four other major headings. An indicator of payments made under one of these four headings—over-

UNCTAD secretariat (see TD/B/AC.11/4), receipts from royalties and service fees from licensing transactions of United States subsidiaries and non-affiliates in developing countries amounted to \$442 million in 1969.

¹⁸ The comparisons are based on data on exports and direct private investment (tables 5 and 13 respectively) in the UNCTAD secretariat report *Review of International Trade and Development 1970* (United Nations publication, Sales No. E.71.II.D.5) and on debt service (table 26) in the similar report for 1969 (United Nations publication, Sales No. E.70.II.D.4).

pricing of imports of intermediate products and equipment ("hidden" costs or "price mark-ups")—may be given, for illustrative purposes only, in the case of Colombia, for which estimates have been prepared by C. V. Vaitos.

38. In his study of Colombia's experience,¹⁹ Mr. Vaitos examined the relationship between the f.o.b. prices paid by companies operating in Colombia with the f.o.b. prices quoted in different world markets for intermediate products used in the pharmaceutical and other industries of Colombia. It was found that the weighted average extent of "overpricing" of products imported by foreign-owned enterprises in the pharmaceutical industry in Colombia was 155 per cent and for the other industries examined it ranged from 16 per cent to 66 per cent.²⁰ The foreign exchange cost paid through overpricing arrangements by the wholly-owned subsidiaries in the pharmaceutical industry alone amounted to a figure which was of the same order of magnitude, or more than all the annual known explicit payments (royalties) for the transfer of industrial technology throughout the national economy. The author calculated that in the Colombian pharmaceutical industry in 1968, overpricing thus accounted for 83 per cent of the "effective returns" obtained by foreign companies established in Colombia.²¹

4. *Estimates of the probable growth of the cost during the 1970s*

39. The evidence so far available on past trends in foreign exchange costs is very spotty (see table 2). It is limited to six developing countries—Argentina, Ceylon, India, Republic of Korea, Mexico and Nigeria, two southern European countries—Spain and Turkey, and Ireland, Japan and the United States. The data for these eleven countries refer to different periods, most of them relatively short ones and usually the second half of the 1960s. Somewhat longer-term data are available for only four of the countries—India, Mexico, Japan and the United States.

40. The developing, the southern European and the other countries are arranged in table 2 in descending order of the annual percentage rate of growth of the foreign exchange costs (under the first two headings listed in paragraph 24 above) of the transfer of technology. Among the six developing countries, these rates varied from 15.2 per cent for India to 55 per cent for Nigeria, and the average for all six, weighted by GDP, comes to about 22.3 per cent per year.

41. In the case of Argentina, the Republic of Korea and Mexico, where data are available on a year-to-year

basis, a certain acceleration in the rate of growth towards the second half of the period covered is noticeable; on the other hand, there was a decline in this rate in India.

42. The annual growth rates shown for the three other countries at comparable, or somewhat higher, levels of *per capita* GDP were 21 per cent for Spain, 49 per cent for Ireland and as much as 65 per cent for Turkey. The experience of these three countries thus appears to suggest that a future annual growth rate of at least 20 per cent would be a not improbable trend for the developing countries. Moreover, the six developing countries in question together accounted for about one-third of combined GDP of the developing countries. They thus, though only a minority, represented a fairly substantial share of GDP of the developing countries.

43. Other comparisons appear to lend support to the figure of 20 per cent as a relatively realistic one for the likely rate of growth of these payments during the 1970s. As shown in table 2, the growth rate of payments for the transfer of technology was in most cases some two and one-half times higher than that of manufacturing output during comparable periods. In some countries, such as Argentina and Ceylon, the ratio was much higher, perhaps owing to relatively slow expansion of their manufacturing output.

44. The target for expansion in manufacturing output during the Second Development Decade has been set at 8 per cent per year (see paragraph 16 of the Strategy). If the ratio of $2\frac{1}{2}:1$ between the growth of the costs of transfer and the growth of manufacturing output were to hold for all developing countries during the 1970s, it follows that transfer payments can be expected to grow at about 20 per cent per year assuming the production target is achieved.

45. The indicators summarized in the preceding paragraphs regarding the past are not sufficient for deriving conclusive evidence about past rates of growth of the foreign exchange costs of the transfer. Nor do they throw light on the major factors responsible for any given rate of growth. Nevertheless, the evidence seems to be fairly strong for assuming that an annual growth rate of about 20 per cent could be considered as reasonable, and could be used as a rough and ready indicator of the probable expansion of the transfer of technology costs during the 1970s.²²

46. At an annual rate of 20 per cent, these costs can be expected to expand some six times during the Second United Nations Development Decade—from \$1,500 million towards the end of the 1960s (see paragraph 35 above) to some \$9,000 million by the end of the 1970s.

47. If figures for the transfer costs under the other headings listed in paragraph 24 above become available, they would constitute an addition to the figures mentioned above.

¹⁹ C. V. Vaitos, "Strategic choices in the commercialization of technology: the point of view of developing countries" (1970, mimeographed).

²⁰ The extent of overpricing is measured by $\left(\frac{A-B}{B}\right) 100$, where A=f.o.b. prices paid by Colombia and B=f.o.b. prices quoted in different world markets.

²¹ See C. V. Vaitos, op. cit. "Effective returns" to the parent corporation are defined as the sum of reported profits of the subsidiary, royalty payments and intermediate product overpricing.

²² The assumption of 20 per cent is an average for the developing countries. In some cases the cost would be higher and in others lower than the average, depending on level and pattern of development, domestic technological base, resource endowment, and other factors such as national policies and policies of developed countries regarding the transfer of technology to particular developing countries.

48. The over-all growth target of 6 per cent per annum set for the Second Development Decade assumes an average annual expansion of "somewhat higher than 7 per cent" in exports of the developing countries (see paragraph 17 of the Strategy). On that assumption, and given a 20 per cent annual growth of costs, the foreign exchange costs of the transfer of technology would rise from 5 per cent of the value of such exports in the late 1960s to as much as 15 per cent in the late 1970s.

49. This, then, is the background to the need for policy measures in the field of transfer of technology at the national, regional and international levels, if the targets of the Second Development Decade are to be attained.

Chapter III

Major policy issues and measures for immediate action

50. Much more empirical evidence must be gathered for the formulation of the full range of specific policies for action at all appropriate levels. This applies particularly to assessing the degree of technological intensity in various economic sectors and individual industries and to identifying their individual responsiveness to several policy alternatives.

51. Resolution of the issues involved in this field requires the attainment of two objectives, which may not always be in harmony. On the one hand, an acceleration of the rate of economic growth of the developing countries and a rapid improvement of their social structures through eradication of mass poverty, inequality and illiteracy requires, *inter alia*, a large-scale transfer from the vast fund of technological knowledge accumulated mainly in the advanced market economy and socialist countries. Every care therefore needs to be taken to ensure that this flow increases rapidly. On the other hand, it is equally essential to ensure that the recipients are not overburdened with such unbearable costs and conditions, or with technology unsuited to their needs and absorptive capacity, that they are unable to take full advantage of the vast opportunities opened by the advances in science and technology.

52. To reconcile these two objectives is the proper domain of policies in the field of transfer of technology to the developing countries.

53. As emphasized above, the elaboration of a full range of policies must await progress in more comprehensive studies of all the issues involved. But as the discussion in chapter II (paragraphs 42-45) underlines, there is a manifest urgency for initiating without delay certain policies which *do not depend* on such a comprehensive elaboration of all the issues. For this reason, the discussion in this chapter is centred upon measures which can be taken promptly.

54. There are at least four areas in which the scope, the need and the opportunity for immediate action, at the national, regional and international levels, would seem to be considerable. The main reason why action in these areas could be undertaken fairly rapidly is relatively simple. In a rather broad sense, it does not depend to any significant extent on the results of the studies which are included in the UNCTAD work programme for the

years ahead. The four areas are: (1) creation of institutional machinery in developing countries, specifically for dealing with the transfer of technology; (2) the appropriate training of personnel for these institutions; (3) the establishment of an advisory service in UNCTAD; and (4) directing of part of the research and development expenditures in the developed countries to subjects of particular relevance to the developing countries.

55. Prompt action in these four areas would at the same time contribute towards implementation of the UNCTAD programme of work in this field. That work programme requires much more than a series of research studies. It needs to be supplemented by the work and experience of other institutions and bodies. Any delay in co-ordinated action at all levels—national, regional and international—would create serious obstacles to achieving the objectives set for the Second Development Decade.

1. *Creation of institutional machinery in developing countries specifically for dealing with transfer of technology*

56. The establishment of specialized institutions, departments or other official agencies, or of public or semi-public autonomous institutions, in the developing countries is manifestly necessary without delay if the whole range of complex questions connected with the transfer of technology is to be satisfactorily dealt with in the interests of each country concerned. At present such institutional machinery is either non-existent, or the main functions that may be performed by it are spread over so many different ministries and departments that it would be surprising if co-ordinated and sound decisions were to emerge. The exact location of such an institution within any particular ministry of a country would have to be determined by the specific requirements of the country concerned, but there is undoubtedly need for some national machinery to ensure centralized responsibility and co-ordination.²³

57. The precise functions of such a national institution would again depend on the specific requirements of a particular country.²⁴ As a minimum it would have to: handle the registration, deposit and approval of the texts of agreements on the transfer of technology (including the relevant parts of investment agreements) in the public and private sectors; undertake or assist in the negotiation of contracts for the transfer of technology; review, evaluate and re-negotiate such contracts; review such various aspects of the cost of transfer as payments for royalties, technical services, interest on external debt and repatriation of profits and capital, and authorize such payments.

²³ Even in countries with some experience in the transfer of technology, it seems that such experience is widely dissipated among various government offices and public and private enterprises. If the relevant experience was concentrated in a single appropriate body, the task of negotiating future transfers of technology would be facilitated.

²⁴ For some ideas on the possible range of functions, see "Questionnaire on the transfer of technology, including know-how and patents: note by the UNCTAD secretariat" (TD/B/AC.11/4), annex I, sections H and I.

58. It should also be responsible for seeking, or helping to find alternative potential suppliers of technology in economic or industrial sectors in accordance with the priorities of national development planning. In addition, it could establish criteria for accepting, rejecting, or modifying the terms and conditions of proposed transfers which are negotiated within the framework of national policy. In co-operation with other parts of the public administration, it could also contribute towards formulating policies for the development of the domestic scientific and technological capability necessary for assessing, modifying and innovating on imported technologies, for adapting and evolving appropriate technologies making the most efficient utilization of domestic resources, and in general for ensuring progress towards strengthening domestic scientific, and technological capabilities.

59. While the nucleus of such machinery should be established in all countries some of its functions might well be performed even better and at lower cost to individual countries at a regional or sub-regional level, through co-operation among a group of countries.²⁵ There could result major economies of scale, particularly for the smallest, and in general for the least developed among the developing countries, especially because of the scarcity of skills in this field. Provisions concerning the establishment of appropriate offices and the performance of these functions at a regional or sub-regional level should be written into agreements concerning regional co-operation; on the other hand, work in this field could be undertaken prior to the conclusion of such co-operation agreements.

2. Training of specialized personnel

60. The mere establishment of such offices would obviously be of little help if they were not manned by appropriately trained personnel. At present, such staff are in very short supply in developing countries, and in many of them are not to be found at all. Even when competent persons are available, they are usually not trained in the precise skills which are necessary for performing the broad functions outlined above. Great importance therefore attaches to training of the personnel that will be called upon to man the national units dealing with policies for the transfer of technology.

61. In order to assure maximum efficiency of the training programme it would be best to organize it initially at an inter-regional level and then, as experience accumulates, extend it to a regional level. The personnel working in, or proposed for, the national offices on transfer of technology in various countries could be selected for extensive training. The duration, as well as the actual content of the courses, would obviously depend on the specific requirements of the countries concerned and on the background of the participants.

62. It will be necessary to initiate such training programmes through the provision of funds from the United Nations Development Programme (UNDP). A fund-in-trust could also be established in UNCTAD if grants were offered for this purpose by interested countries.²⁶

3. Establishment of an advisory service

63. Clearly, the establishment of national offices dealing with the transfer of technology and the training of their personnel requires a certain time, and for the smaller, and in general for the least developed among the developing countries, perhaps a rather long time. In the meantime the developing countries are faced with the need to take decisions concerning agreements on the transfer of technology, which may often have a major impact on their economies for many years to come. It may be extremely helpful to these countries if an advisory service is established in UNCTAD to provide them, upon request, and in co-operation with other bodies as appropriate, with experienced advisers who could help in the preparation of investment projects involving the transfer of technology and in negotiations with foreign suppliers of technology. The provision of such a service would constitute a practical way of facilitating implementation of the relevant parts of the International Development Strategy.

64. The advisory service should be able to assist: (a) in the formulation and evaluation of projects concerning the transfer of technology; (b) in seeking various technological alternatives and choosing the most appropriate from among them; and (c) in the negotiation of specific contractual arrangements. Because of their low level of domestic capability in these fields, the least developed among the developing countries may well request detailed assistance in all three respects. For the somewhat more advanced developing countries, however, the accent in the advisory service required may be placed on one or more of these fields, depending upon their specific requirements.²⁷

65. The advisory service should be composed of a small group of persons possessing considerable experience in various aspects relating to the transfer of technology. The UNCTAD secretariat, as appropriate, would co-operate in this connexion with other bodies concerned with these questions, and in particular with the United Nations Industrial Development Organization (UNIDO) and the World Intellectual Property Organization (WIPO).

66. The financing of the advisory service could be similar to that for training programmes (see paragraph 62 above), and indeed it may be the most economical solution to combine advisory service and training. The staff of the advisory service could then divide their time, as appropriate, between the training of specialized personnel and advisory work on particular projects.

²⁵ The experience of the Andean group of countries, signatories to the Cartagena Agreement, may serve as a valuable guideline for the operation of such arrangements. See "Policies relating to technology of the countries of the Andean Pact: their foundations—a study by the Board of the Cartagena Agreement" (TD/107) (see p. 122 below).

²⁶ Several examples of funds-in-trust already exist in the United Nations and in UNCTAD, so that this proposal would not involve any new procedures.

²⁷ The experience of the advisory service will assist the UNCTAD secretariat in exploring the possibilities of establishing international norms or standards respecting the basic terms and conditions of technology transfer.

4. *Directing a part of the research and development expenditures in the developed countries to projects of particular significance to the developing countries*

67. The International Development Strategy in paragraph 63 states that the developed countries will, in their research and development programmes, assist in seeking solutions to the specific problems of developing countries and for this purpose will endeavour to provide adequate resources. Serious consideration could now be given to the question of setting a specific target in this field. If the developed countries could allocate a certain proportion of their research and development expenditure for the purpose of resolving the problems involved in choosing and applying technologies specifically suited to the resource endowment and growth requirements of the developing countries, the technological prospects for these countries would be substantially enhanced.²⁸ The progress achieved towards attaining this target could then be reviewed during the first biennial appraisal of the progress made in implementing the International Development Strategy.

68. A developing country could bring to the attention of the UNCTAD secretariat a technological problem which it wished to be studied in the light of its needs. The UNCTAD secretariat, after consulting competent international organizations and other appropriate bodies, would seek the institution in a developed country able and willing to study the particular problem, and would bring the interested parties together. Alternatively, the initiative in this respect could also be taken by an institution or a body in a developed country which might offer to seek the solution to a technological problem of importance to developing countries. The UNCTAD secretariat could help, through the appropriate channels, in finding one or more developing countries which might be particularly interested in the problem and, as in the preceding case, would bring the interested parties together.

ANNEX

Sources for tables

I. DATA ON PAYMENTS FOR THE TRANSFER OF TECHNOLOGY

Data on payments for patents, licences, know-how and trademarks and for management and other technical services have been obtained from various sources, as listed and explained below:

Latin America

Argentina — Information obtained in reply to the UNCTAD secretariat "Questionnaire on the transfer of technology, including know-how and patents" (TD/B/AC.II/4).

Brazil — Máximo Halty Carrère, "Producción, transferencia y adaptación de tecnología industrial" (Organization of American States (OAS), Washington D.C., 1971), table 1.

Colombia — Halty Carrère, op. cit., table 1.

²⁸ The Government of Canada, for instance, recently set up an International Development Research Centre, one of whose objectives is to use the research and development capability in developed countries for dealing with problems of specific interest to the developing countries.

Chile — Chilean Development Corporation (CORFO), "Análisis de censo de contratos de regalías efectuado en Chile" (Santiago, January 1971), p. 18. Data relate exclusively to royalty payments from licensees to licensors, and hence do not cover all payments for technology transfer. They were obtained from a sample survey conducted by CORFO covering 495 firms, i.e. about 75 per cent of the total number of firms having valid royalty contracts registered in Chile. A large part of the industrial sector, in particular the engineering industry, was excluded by the classifying of enterprises eligible for survey coverage as those registered as operating under contract.

Mexico — "La transferencia internacional de tecnología al nivel de empresa — el caso de México", prepared by M. S. Wionczek (document ESA/FF/AC.2/10). The author's estimate of \$200 million for payments for technology transfer in 1968 is based on an extrapolation of data available for earlier years, adjusted for the limited coverage of the statistics.

Venezuela — Fernando Martínez Galdeano, "Importamos dependencia", *Revista SIC*, No. 333, March 1971. Data cover only payments for the use of patents.

Africa

Nigeria — The figures given in table 1, columns (1) and (2), were obtained from "Arrangements for the transfer of operative technology to developing countries—Case study of Nigeria" (document ESA/FF/AC.2/4/Add.1), tables 1 and 14. The figure in column (1) includes, in addition to royalty payments, consultancy fees, commissions, etc. The data, which are based on balance-sheets and profit and loss accounts and not on actual end-of-the-year remittances, cover all foreign companies with a minimum authorized capital of \$28,000; oil companies account for most of the transfer cost. Estimates for non-responding companies are also included, but not payments by public and domestic private sectors. The figure in column (2) relates to the cost of employing non-Nigerian high-level managers to operate the various manufacturing and processing establishments; part only represents remittances abroad in foreign currency. According to the case study, some payments for technology are probably included in remittances of profits, dividends, etc.

Asia

Ceylon — Information obtained in reply to the UNCTAD secretariat questionnaire.

India — The figure given in table 1, column (3), relates to the financial year 1968/69 and is cited in "Arrangements for the transfer of operative technology to developing countries—Case study of India", prepared by the National Council of Applied Economic Research, New Delhi (document ESA/FF/AC.2/3/Add.1). It relates to royalty payments and payments for management and technical assistance services by the private sector only. The complete omission of data on payments by the public sector is a serious shortcoming, since the public sector accounts for two-thirds of all industrial investments in India.

Indonesia — Royalty payments have been officially estimated at 2½ per cent of the value of gross domestic fixed capital formation (see Report of the Intergovernmental Group on Transfer of Technology on its organizational (first) session in *Official Records of the Trade and Development Board, Eleventh Session, Annexes*, agenda item 7, document TD/B/365, para. 10). This percentage was applied to the 1968 value of gross domestic fixed capital formation to obtain the figure given in table 1, column (3).

Israel — The figure given in table 1, column (3), was obtained from "Arrangements for the transfer of operative technology to developing countries: progress report of the Secretary-General, Annex II—Case study of Israel", prepared by S. M. Yaniv (E/4452/Add.2).

Republic of Korea — Information obtained in reply to the UNCTAD secretariat questionnaire.

Pakistan — The figure given in table 1, column (3), is an estimate by Mahbub ul Haq (see "Elements of a programme of work for UNCTAD: study by the UNCTAD secretariat", *Official Records of the Trade and Development Board, Tenth Session, First, second and third parts, Annexes*, agenda item 14, document TD/B/310, para. 95).

Southern Europe

Spain — Peter James, "The transfer of industrial technology to Greece, Spain, Turkey and Yugoslavia", Paris, January 1971 (mimeo.), table A12.

Turkey — Peter James, *op. cit.*, table A9.

Other Countries

Ireland — *Science and Irish Economic Development*, Dublin, 1970; *Research and Development Surveys, 1969*, Dublin, 1970; Central Statistics Office, *National Income and Expenditure, 1969*, Dublin, 1971.

Japan — The figure given in table 1, column (3), was obtained from "The transfer of technology to developing countries, with special reference to licensing and know-how agreements" (TD/28/Supp.1), table 3.

United States — Data given in table 2 were obtained from the reply to the UNCTAD secretariat questionnaire. They relate to receipts from developing countries only and consist of items: (1) entered into intercompany accounts of United States corporations and their foreign affiliates, and (2) arising out of agreements by United States residents with residents or governments of foreign countries for the use of patents, trademarks, copyright, etc., rentals for the use of tangible property and charges for the use of professional, administrative or management services.

II. OTHER DATA

The figures given in table 1 for GDP (at current market prices) and exports are taken from United Nations, *Statistical Yearbook, 1970*.

Annual average growth rates of GDP (at constant prices), as given in table 2, are UNCTAD secretariat estimates, based on data in United Nations, *Yearbook of National Accounts Statistics, 1968 and 1969* editions. For manufacturing output, annual average growth rates are estimates based on data in *United Nations Monthly Bulletin of Statistics*, July 1958, December 1963, October 1968 and August 1970.

POLICIES RELATING TO TECHNOLOGY OF THE COUNTRIES OF THE ANDEAN PACT: THEIR FOUNDATIONS

A study by the Board of the Cartagena Agreement *

[Original text: English/Spanish]

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Introduction

1. The policies agreed jointly by the five Andean countries (Bolivia, Chile, Colombia, Ecuador and Peru) on technology at the end of 1970 constitute the first explicit and integrated approach undertaken on the subject by the members of the Andean Pact. Additional complementary decisions are scheduled to be taken before November 1972. Such policies are based on an appreciation of the critical role that technology has to play in economic development and on a recognition of the importance of the technology imported into the Andean countries. Specific emphasis is placed on the need to undertake concentrated action to enhance domestic

technological activities. As far as imported technology is concerned, as in the case of foreign direct investment, notice has been taken of the fact that the enlarged market resulting from the Andean integration offers new prospects for economic activities in the area. The awareness of these prospects, stemming from an enlarged and growing market, has changed the relative bargaining power of the parties to the purchase of technology. An attempt has been made to consider explicitly the adequate distribution of benefits accruing to technology suppliers and purchasers. Furthermore, legal and institutional procedures were instituted to correct the imperfections at present existing in the market for technology within the Andean countries.

2. This document presents the conceptual and empirical foundations of the policies of the Andean countries regarding technology and a brief description of the policies themselves.¹

Chapter I

Characteristics of the market for technology commercialization

3. The literature that evaluates issues related to the process of importing know-how into developing countries generally deals with the subject under the heading of "technology transfer". Terminology, although an inadequate index, often throws light on the extent to which concepts have been adequately analysed and understood. The term "transfer" indicates in this particular case the very limited comprehension that exists about the technology market. In commercial or economic language one does not talk about the "transfer" of copper or cotton or television sets, but about the sale (or purchase) of these commodities or products. Similarly, in the case of production factors a meaningful analysis has been undertaken by distinguishing and evaluating the characteristics of foreign direct investment, portfolio investments, international indebtedness, workers' migration, etc. The term "transfer" could represent a rather loose usage of the word; or it could be an indication of insufficient knowledge about the phenomena involved; or even it could fall within what Myrdal called "diplomacy by terminology". In the present paper we thus prefer the term technology commercialization and our purpose will be to evaluate the characteristics of its market. In that sense technology is removed from the research and development laboratory and from the sphere of national policies for education, science and technology, and enters the world of commerce. Technology viewed as an economic unit, a merchandise, has a special market (even a market "place") with a particular structure and specific properties, mechanisms that settle prices and "quantities", rules of exchange and market impurities. The general principles of determining economic value on the basis of relative scarcities and the definition of market performance (number and size of buyers and sellers, relative bargaining power, extent of available information, etc.) govern also the market of technology commercialization given its own proper characteristics. In the present document these special characteristics are considered under three broad headings: (a) properties of technology as a traded entity; (b) concentration as a market structure; and (c) notes on the availability and supply of technology.

A. PROPERTIES OF TECHNOLOGY AND THEIR ECONOMIC IMPLICATIONS

4. These may be conveniently discussed under three headings.

(1) Technology in the process of its commercialization is usually embodied in intermediate products, machinery and equipment, skills, whole production systems (like turnkey plants), even systems of distribution or marketing (such as cryogenic technology in ships that transport liquid gas), etc. Thus, know-how represents a part integrated in a larger whole. As a result, the market for the former is not independent but constitutes part of the market for the latter. This market integration of various inputs creates non-competitive conditions for each item since they are sold in a package form.

(2) As in all other markets, a prospective buyer needs information about the properties of the item he intends to purchase so as to be able to make appropriate decisions. Yet, in the case of technology, what is needed is information about information, which could effectively be one and the same thing. Thus, the prospective buyer is confronted with a structural weakness intrinsic in his position as a purchaser, with resulting imperfections in the corresponding market operations.

(3) The use of information or technology by a company or person does not in itself reduce its availability, present or future. Thus, the incremental cost in the use or sale of an already developed technology is close to zero for someone who already has access to that technology. In cases of minor adaptation (due to scale, taste, local conditions, etc.) the firm incurs certain costs but these can be estimated and usually do not exceed a figure in the tens of thousands of dollars. From the point of view of the prospective purchaser, however, the relevant incremental cost for developing a similar alternative technology with his own technical capacity might amount to millions of dollars. Given market availabilities, the price between zero or tens of thousands of dollars, on the one hand, and millions of dollars, on the other, is determined solely on the basis of crude bargaining power. The range of the corresponding costs is so wide that no price between the two extremes can be claimed to be more or less appropriate.

5. These three properties indicate that technology is traded under conditions that are non-competitive; that prospective buyers suffer from inherent weaknesses in formulating their demand for know-how; and that relative bargaining power is the determining factor that settles the terms of exchange. Policies directed towards the regulation and improvement of the mechanisms for technology commercialization need to consider explicitly the implications of such properties on the behaviour of participating firms.

B. CONCENTRATION AS A MARKET STRUCTURE

6. In addition to the properties mentioned above, we need to refer to some additional characteristics of the structure of the market within which technology is being traded and the further implications that this has on requisite policies. These characteristics are related to particular forms of market concentration, which in turn result in behaviour characterizing markets of *sequential and interdependent monopolies*. Using the Chilean case

¹ An earlier longer paper upon which the present one is based has been circulated in the Andean countries and was submitted to the Organization of American States (OAS) by the researchers responsible for the project. The OAS financed part of the studies in question.

Sector (1)	Country (2)	Payments to countries listed in column (2), as percentage of total payments by sector (3)
Food and beverages	Switzerland	
	United States	96.6
Tobacco	United Kingdom	100.0
Industrial chemicals	Federal Republic of Germany	
	Switzerland	96.6
Other chemicals	United States	
	Federal Republic of Germany	92.0
	Switzerland	
Petroleum and coal products	United States	
	United Kingdom	100.0
Rubber products	United States	99.9
Non-metallic minerals	United States	97.0
Metallic products (excluding equipment)	United States	94.0
Non-electric machinery	United States	98.7
Electric equipment	Netherlands	
	United States	92.0
	Spain	
Transport equipment	France	
	Switzerland	89.0

as an example we proceed to analyse three forms of market concentration that throw further light on the description of the phenomena involved (see table above).² First, there is a concentration in the total payments involved by sector with respect to the country of destination of such payments. Chilean licensees (national and foreign-owned companies), under 399 contracts analysed, paid for royalties, profit remittances, intermediates, etc., the indicated percentages of the total outlays by sector to the countries listed.

7. This type of very high country concentration of destination of payments from the various sectors (which in turn is the mirror image of the concentration of origin of resources from technology producing countries) depicts basically two inter-related causal factors. On the one hand it indicates the lack of diversification or lack of attempts to diversify potential sources of supply on the part of the purchaser. Quite often he prefers to receive resources in a package form from the same origin since an alternative strategy of diversification would have implied costs of obtaining information, usage of other scarce resources, etc. A rational decision would have necessitated a comparison between these types of costs and those involved in purchasing inputs in a non-competitive manner from the same origin. The second causal

factor involved is the fact that the country concentration referred to above often reflects a company concentration. Arrangements for patent cross-licensing among multinational corporations, cartel agreements, tacit segmentation of markets (particularly in developing countries whose size prompts such arrangements) often constitute common behaviour rather than the exception.

8. A second type of concentration reflects the combination of contracts for the transfer of technology, for foreign investments (direct as well as loans) and for the purchase of intermediates and capital goods. These three types of contract often take the form of a package deal. An analysis of one of them implies immediately the analysis of the others, and more especially the analysis of all of them in the package they constitute. For example, the table below relating to Chile lists by order of importance the countries that have the highest number of technology contracts, the largest volume of foreign direct investments in the country, the largest credits extended by foreign private firms and the largest receipts from the sale of intermediates and capital goods to their Chilean licensees, by whom royalties and/or dividends are also paid.

9. The table below indicates an almost complete correspondence in order of importance of the countries appearing in each of the four columns. Since the listing of countries reflects in practice the firms involved, the table indicates once more the existence of a collective exchange of factors of production and intermediates in a package form. Foreign direct investment implies the concomitant "sale" of technology from parent to subsidiary. Also, the propensity to use technology commercially stimulates foreign direct investment. Furthermore, the sale of technology and capital generate the sale of prod-

² See C. V. Vaitos, "The process of commercialization of technology in the Andean Pact", mimeo., Lima, October 1971; this analysis was based on data in ODEPLAN, *El capital privado extranjero en Chile en el periodo 1964-1968 a nivel global y sectorial*, Santiago, Chile, August 1970; Chilean Development Corporation (CORFO) *Comportamiento de las principales empresas industriales extranjeras acogidas al D.F.L. 258*, publication No. 9-A/70, Santiago, Chile; and G. Oxman, "La balanza de pagos tecnológicos en Chile", mimeo., September 1971.

<i>Number of licences</i>		<i>Total volume of foreign direct investments 1964-1968</i>	<i>Total volume of foreign private loans 1964-1968</i>	<i>Total receipts from intermediate and capital goods, and from royalties and profits in 1969, under 399 technology contracts</i>
		(\$U.S.)	(\$U.S.)	(\$U.S.,
United States	178	United States 43 103 000	United States 120 299 000	United States 16 849 000
Federal Republic of Germany	46	Canada 25 181 000	Federal Republic of Germany 28 181 000	Federal Republic of Germany 4 238 000
Switzerland	35	Federal Republic of Germany 14 517 000	Switzerland 18 250 000	Switzerland 3 949 000
United Kingdom	30	Switzerland 2 941 000	United Kingdom 8 121 000	United Kingdom 3 896 000
France	17	United Kingdom 2 264 000	France 6 051 000	France 2 606 000
Italy	12		Canada 4 789 000	Netherlands 2 575 000
Netherlands	10			

ucts embodying the technology or manufactured with the aid of both technology and capital. This concentration of resources in a package form creates special monopolistic conditions owing to the absence of competitive forces for each one of the inputs involved which are exchanged jointly in a collective unit. The third form of concentration refers to the market structure of the recipient countries. In a sample taken of foreign owned subsidiaries in Chile, 50 per cent of them had a monopoly or duopoly position in the host market. Another 36.4 per cent had an oligopolistic position in the market. Only 13.6 per cent of the foreign subsidiaries in the sample controlled less than 25 per cent of the local market. Similar indices of concentration were noted in Colombia. Thus, foreign suppliers operating within high protective tariff walls³ are able to pass on to the final consumer, through market domination, monopoly rents that are related to the other two types of concentration examined above. Thus, the three kinds of concentration are intimately connected. Market concentration and control in the host country, coupled with high tariff protection, make it possible to achieve high effective returns in such markets. These returns, then, are passed on to foreign suppliers of collective units through tied arrangements for the supply of inputs, often resulting in domestic tax avoidance (as distinct from tax evasion). Furthermore, country or firm concentration prevents competition even among alternative packages of inputs. Hence, the market for technology and for foreign direct investments, owing to its compounded imperfections in consequence of various forms of concentration, needs special remedial policies to be applied by the governments of the host countries so as to protect the national interests.

C. NOTES ON THE AVAILABILITY AND SUPPLY OF TECHNOLOGY

10. First we need to distinguish between the concept of availability (or non-availability) of technology and that of the supply of technology. The former has to be

qualified by inquiring: available to whom? As in the analysis of availability of credit (as distinct from the cost of credit) answers to the question will depend on the understanding of the concentration and "captive" nature of technology on the one hand and the factors that affect access to it by potential users on the other. As far as concentration is concerned, internationally traded industrial technology is to a large extent localized in corporations which through product and process innovation and imitative or adaptive research are able to make commercial use of the fruits of knowledge. It should be emphasized that a large part of that technology (certainly most of the technology sold to developing countries) implies on the part of the sellers "cutting and taping together" bits of knowledge which, when appropriately combined and promoted, could lead to the successful commercialization of modified or new products and processes. This form of innovative activity, with its own form of scarcity, requires technical and other skills (with respect to search for existing knowledge, systems of information diffusion, evaluation, improvement, etc.) which are quite distinct from the activities of the so-called "centres of excellence" of research oriented towards the frontiers of scientific know-how. A systematic study undertaken in the petrochemicals industry indicated that, during the period when technology was most likely to be sold to developing countries, the original producers of a particular product or process accounted for only 1 per cent of the total know-how licensing. The remaining 99 per cent was divided between "followers" of commercial producers (52 per cent) and engineering firms (47 per cent).⁴ Similarly, know-how in electronics sold to developing countries by technology-intensive companies like Philips International or General Electric generally includes know-how regarding products with a certain age of commercial usage (like transistorized components for television or radio). Such technology is available to or from other firms, which are not necessarily technology-intensive, in Belgium, Spain, Japan and other countries. Furthermore, this know-how corresponds to technological activities

³ The infant industry argument and tariff protection for such industries certainly need a re-evaluation if "infancy" is ascribed to companies like General Motors, Imperial Chemical Industries (ICI), Philips International, Mitsubishi, etc., whose subsidiaries dominate the market of key industrial sectors in developing countries.

⁴ See R. Stobaugh, "Utilizing technical know-how in a foreign investment and licensing program", paper delivered to the National Meeting, Chemical Marketing Research Association, February 1970, p. 5.

quite different from those of a later vintage and concerned with different products (such as space satellites) to which research and development (R & D) budget funds are devoted by Philips or General Electric. Thus, when we talk about the availability of technology which is at present sold to developing countries it is more relevant to talk about the *kind* of technological activities pursued (which could include "inverse technology", product testing, imitation, even product servicing) rather than about the size of the R & D budget. The economics of technology at this stage are more related to the broader issues of the economics of information and its use for commercial purposes.

11. As far as the "captive" nature of technology is concerned, this is related to legal monopoly privileges granted through patents by countries and to technical captivity acquired through experience, product testing and improvement, guarded performance in the use of knowledge, etc. Access to knowledge and its use (outside of impediments imposed legally through patents or commercially by other barriers on entry) are related, among others, to the capacity of potential users to search for knowledge and to their ability to translate it into competitive product and process innovations.⁵

12. The elements mentioned above with respect to the availability of technology are related to but also need to be distinguished from the supply of technology. By supply we mean the cost structure of technology sold to a given firm. Although potentially much more competitive, the present market for technology related to developing countries approaches the characteristics of bilateral oligopoly, that is those of oligopoly-oligopsony. In such a market, with the special marginal cost considerations that are involved in the development and commercialization of technology, its supply cannot be determined *a priori*. We can only refer to the supply of technology (as distinct from its availability) with respect to the supply facing a given firm with a particular size and ownership structure which operates under conditions of a given effective market protection related to goods produced as well as imported for further processing, and within a particular tax (and even monetary) system and which has to take into account specific government policies with respect to access and negotiations for technology acquisition. Thus, for the same know-how a Chilean-owned firm deals with a source of supply different from that which a Brazilian-owned firm, or a foreign-owned firm in Chile or Brazil, has to deal with. The issue becomes even more complex if one considers that the supply of more of the same technology is meaningless for a given firm once it has mastered that technology and it is contractually and legally permitted to use it.

13. The following example will help to explain why the cost (or supply) of technology is *a priori* incapable of being determined. The predominant form by which

the price of technology is computed is through a percentage rate on the sale of goods or services incorporating the know-how in question. To start with, such a percentage for a given technology will depend on whether the recipient firm is owned by the licensor or by third parties, and on other factors. If it is owned by the licensor and the local government does not intervene in the process of negotiation, the percentage of royalty payments will depend on the global financial management of the parent-licensor. For example, if the corporate tax rate in the host country of the subsidiary is higher than that of the home country, the parent company will be induced to increase royalty receipts so as to reduce over-all tax payments for the firm. Similarly, the higher the *ad valorem* tariff rates for intermediate products sold by the parent to a subsidiary, the lower will tend to be the (transfer) pricing of such products, which in turn will prompt higher royalty payments as a mechanism of income transfer. The considerations affecting the supply of the same technology for a firm not owned by the licensor will be quite different. Furthermore, the cost of technology (whether in terms of percentage rates or of absolute amounts) will depend on the number of units sold and the price of the product incorporating the respective know-how. Also, given a royalty rate, the higher the *ad valorem* tariff rate on the products produced by a given know-how, the higher is the absolute cost of obtaining that technology.

Chapter II

Empirical results and their interpretation

14. In order to understand the terms of technology commercialization, diverse studies were undertaken on the subject in the Andean countries between 1968 and 1971. These studies included an evaluation of contracts for the purchase of know-how, an investigation of the structure and implications of the present patent system and a financial analysis of the price effects of technology embodying imported intermediate products. The results, in summary form, of these studies are presented below.

A. ANALYSIS OF CONTRACTS FOR TECHNOLOGY COMMERCIALIZATION

15. In the five Andean countries 451 contracts in various sectors were evaluated. The country breakdown was as follows:

Country	No. of contracts	No. of economy sectors
Bolivia	35	4 including "others"
Colombia	140	4
Chile	175	13
Ecuador	12	5
Peru	89	2 including "others".

16. The clauses analysed in these contracts raise important economic and legal issues about the extent to which private contracting (*contratación privada*) reaches into areas where private economic benefits derived by some or all of the parties involved are in conflict with the over-all economic and social interests of the country

⁵ Research in Indonesia indicated that the technology used by foreign investors in the manufacturing sector of that country could have been obtained without necessarily being attached to foreign investments, if Indonesian firms had searched the world market adequately. In the absence of such initiative by the local firms, technology reached Indonesia through foreign direct investments.

where they operate. Some answers to this type of question have long been provided in the industrialized world through anti-monopoly and anti-trust legislation as well as through the establishment of public regulatory agencies. Many developing countries have still to demonstrate an awareness of these issues and their implications for their private and public economic interests. Furthermore, the terms and conditions to be discussed below raise questions about the concept of liberty or sovereignty to contract among unequals. In a bargaining structure with very unequal participants, with limited information and imperfect over-all market conditions the sovereignty of the "technology consumers" becomes a concept of very limited applicability.

B. EXPORT RESTRICTIVE CLAUSES

17. One of the most frequent clauses encountered in contracts for the commercialization of technology is one prohibiting export. Such restrictive practices generally limit the production and sale of goods produced through the use of foreign technology solely to the territory of the receiving country. Some allow exports to specific neighbouring countries only. Of the total of 451 contracts analysed by the secretariat of the Andean Pact, 409 contained information about exports which is summarized in the table at the foot of this page.

18. In Chile out of 162 contracts about which information was available, 117 prohibited any form of exportation altogether. Of the remaining 45, the majority limited exports to certain countries. The exact number of these partial export permits could not be estimated from the data provided by Chile. Thus, in the four countries for which precise figures were available about 81 per cent of the contracts prohibited exports altogether and 86 per cent had some restrictive clause on exports. In Chile about 73 per cent of the contracts prohibited exports altogether.

19. An analysis of the above data indicates that no significant differences exist among the stipulations in contracts for the commercialization of technology entered into by firms in the countries considered here. For example, the percentage of contracts with complete prohibition of exports to the total number of contracts about which information was available was as follows:

Bolivia	77 per cent
Colombia	77 per cent
Chile	73 per cent
Ecuador	75 per cent
Peru	89 per cent.

20. With the exception of contracts entered into by firms in Peru, where figures were high owing to the large number of contracts relating to the pharmaceutical sector in the sample taken, the rest indicate similar percentages. In terms of sectorial comparisons the following figures were noted with regard to the various forms of export restrictions:

Textiles	88 per cent
Pharmaceuticals	89 per cent
Chemicals	78 per cent
Food and beverages	73 per cent
Others	91 per cent.

21. Restrictive clauses affecting exports are stipulated on the basis of relative bargaining power, in the light of market conditions relating to alternative sources of supply of technology. Despite the different sizes and relative strengths of firms in the Andean countries, the concessions obtained by these firms in their negotiations with foreign multinational corporations that sell industrial technology do not differ greatly. The bargaining power of a relatively large firm in Medellin, Colombia, in dealing with a multinational corporation, does not seem to differ very much from that of a smaller firm in Cochabamba, Bolivia. There appears to be a "critical" level of bargaining power, and this will depend, in part, on government policies.

22. An analysis according to ownership indicated that 92 per cent of the contracts prohibited the exportation of goods produced with foreign technology in the cases where the technology-purchasing firms were locally owned. And this occurred at a time when the Andean nations, with the establishment of their common market, were trying to integrate economies by increasing intra-regional trade. Agreements reached between governments, are, in the case of the commercialization of technology, greatly influenced by the terms reached among private firms whose relative bargaining power is totally unequal. Also, efforts by UNCTAD and individual governments to achieve preferential treatment for the exports of manufactured goods from developing countries have to be considered within a market structure which does not permit such exports through explicit restrictive clauses. Technology, an indispensable input in industrial development, becomes, through its present form of commercialization, a major factor limiting such development.

23. The absence of such export-prohibiting clauses will not, of course, lead necessarily to actual exports. Everything depends on the productive and marketing capacities of the firms, their relative competitive position

Country	Total number of contracts	Total prohibition of exports	Exports permitted in certain areas only	Exports permitted to rest of world
Bolivia	35	27	2	6
Colombia	117	90	2	25
Ecuador	12	9	—	3
Peru	83	74	8	1
Total	247	200	12	35

in external markets, their export horizon, etc. Yet, contractually assumed export possibilities, even if they do not constitute a sufficient condition, nevertheless constitute a necessary condition for such export capabilities. What is more, such clauses can severely inhibit the long process necessary for firms to develop export orientation and capacities.

C. TIE-IN CLAUSES RELATING TO INTERMEDIATE PRODUCTS AND PRICE EFFECTS

24. A large percentage of the contracts for the commercialization of technology include obligatory terms requiring intermediate and capital goods to be purchased from the same source as that of know-how. For example, more than two-thirds of the contracts about which information was available in Bolivia, Colombia, Ecuador and Peru had such tie-in clauses.

25. Even in the absence of such explicit terms, control through ownership of the know-how sold or through technological requirements and specifications stemming from its nature could determine almost exclusively the source of intermediate products. Thus, as in the case of tie-in arrangements in loans, benefits for the supplier and costs for the purchaser are not limited only to the payments expressly stipulated, such as royalties or interest. They also include implicit charges through the various forms of margins in the concomitant or tied sale of other goods and services. Furthermore, at the aggregate level, flows of technology among countries determine the associated flow of intermediates, equipment and capital.

26. This structure of the market for intermediates and other inputs which are tied to the sources of technology and/or capital has significant repercussions on the strategy of import substitution pursued by the majority of developing countries. Such a strategy has, in fact, implied an increasing dependence on imports of capital goods and intermediate products. Only a few countries well ahead in their development process, like Argentina, Mexico and Brazil, have achieved in certain sectors significant "backward linkages" ⁶ in domestic production. Others, however, find that inputs account for an increasing share in their total import bill as industrialization advances.

27. For example, in Colombia two-thirds of the total import bill in 1968 comprised imports of materials, machinery and equipment for the industrial sector, while the other one-third was accounted for by final products for consumption and intermediate goods for the agricultural sector.⁷ A similar dependence and a similar structure of imports are to be expected for Chile and Peru and other countries at a comparable stage of industrial development.

⁶ Stimulus to early stages of production given by the establishment of domestic industry depending upon these early stages for its inputs of raw materials and intermediate products. For instance, creation of plant producing shoes could stimulate domestic processing of hides and skins.

⁷ See data from Banco de la República, tabulated by INCOMEX, "Clasificación Económica de las Importaciones", 1969.

28. For the whole of Latin America it has been estimated that during the period 1960-1965 about \$1,870 million were spent annually for the importation of machinery and equipment. These imports amounted to 31 per cent of the total import bill of the area. They also constituted about 45 per cent of the total amount spent by Latin America on capital goods during the same period. For individual countries this relationship amounted to 28 per cent for Argentina, 35 per cent for Brazil, 61 per cent for Colombia, 80 per cent for Chile and 80 per cent for Peru.⁸

29. As far as intermediates are concerned, industry samples in Colombia have indicated that imported materials represented in 1968 between 52 and 80 per cent of total materials used by firms in parts of the chemical industry. In the case of rubber products the corresponding ratio was 57.5 per cent and in the pharmaceutical industry 76.7 per cent. It was only in textiles that the ratio of imported intermediates to total materials used fell to 2.5 per cent. Similar figures were reported for Chile. For example, imported intermediate products amounted to more than 80 per cent of total materials used in the pharmaceutical industry and between 35 and 50 per cent of total sales of the Chilean firms involved. This heavy dependence on imports of intermediates and capital goods has important repercussions on the recipient countries if one considers the fact that the bulk of such imports is either exchanged between affiliated firms and/or tied to the purchase of technology. For example, it has been estimated that about one-third of the total imports of machinery and equipment in Latin America are made by foreign-owned subsidiaries. Using the following ratio to define "overpricing":

$$100 \times \frac{a-b}{b}$$

where: a = f.o.b. prices on imports in Andean countries
 b = f.o.b. prices in different world markets

the results for the countries members of the Andean Pact presented the following indicators:

In the Colombian pharmaceutical industry a sample taken indicated that the weighted average overpricing of products imported by foreign-owned subsidiaries amounted to 155 per cent while that of national firms was 19 per cent. The absolute amount of overpricing in the case of the foreign firms studied was equivalent to six times the royalties and twenty-four times the declared profits. For national firms the absolute amount of overpricing did not exceed one fifth of the declared profits. Smaller samples taken in the same industry in Chile indicated an overpricing of imported products at times in excess of 500 per cent while for the majority of them the range was between 30 and 500 per cent. Similarly, in Peru samples in the same industry presented overpricing that in most cases ranged between 20 and 300 per cent while in the case of some products overpricing exceeded 300 per cent. In all three countries the overpricing noted in the imports

⁸ Preliminary estimates by the Economic Commission for Latin America (ECLA), presented by F. Fajnzilber in "Elementos para la formulación de estrategias de exportación de manufacturas", ST/ECLA/Conf.3/L.21, Santiago, Chile, July 1971, pp. 91-95.

of foreign-owned firms was considerably higher than that of nationally-owned ones. Evidently foreign technology and capital suppliers have indicated in these cases a preference for realizing their returns in an implicit form through transfer pricing rather than explicitly through royalty payment and/or profit remittances.⁹

30. Similarly in the electronics industry in Colombia comprehensive samples corresponding to firms that controlled about 90 per cent of the market indicated overpricing which ranged between 6 and 69 per cent. In the Ecuadorian electronics industry, 29 imported products that were evaluated in relation to the Colombian registered prices indicated the following results: sixteen of them were imported at prices comparable to the Colombian ones, seven had an overpricing up to 75 per cent and six of them had rates of overpricing of about 200 per cent. Earlier studies undertaken only in Colombia showed a weighted average of 40 per cent overpricing in the imports by foreign owned subsidiaries in the rubber industry and zero overpricing for nationally owned firms. Also smaller samples in the Colombian chemical industry indicated weighted average overpricing that ranged between 20 and 25 per cent.¹⁰

31. In the case of imports of products into developing countries returns to the foreign factor suppliers are realized through the overpricing of such products, as well as by other means. In the case of exports of products from a country, similar returns can be realized through the underpricing of the products sold by companies to their foreign affiliates. Preliminary research in Colombia, still in process, indicates significant underpricing of products of the timber, fish processing and precious metals industries which are exported by foreign subsidiaries to their parent corporations. Similarly, foreign businessmen with an interest in entering the fishing industry in Peru have expressed their preference for breaking even in their operations in Peru while making their profits "in the marketing and abroad". Considerable interest has been expressed in the past in the worsening terms of trade of developing countries owing to their specialization in the production and exportation of primary products. It is not improbable that the present process of industrialization, given the existing mechanisms for the supply of technology and foreign capital, could have resulted in a further worsening of the terms of trade of these countries. Such a deterioration might have occurred because the markets within which factors of production (such as technology and capital) are being traded, jointly with intermediate products and capital goods, are even more imperfect than the markets for final industrial products.

⁹ For a comparative analysis of the pharmaceutical industry in Chile, Peru and Colombia, see P. Díaz, "Análisis comparativo de los contratos de licencia en el Grupo Andino", mimeo., Lima, September 1971.

¹⁰ For a complete description of the methodology and results of the studies undertaken in Colombia, see C. V. Vaitos, "Transfer of resources and preservation of monopoly rents", in *Economic Development Report* (Harvard University, Center of International Affairs), No. 168, 1970.

32. A significant point needs to be added. The above cited investigations and their results were based on comparisons of "overpricing" (or "underpricing") which in turn imply the comparison of two different prices. Yet, income flows occur on the basis of pricing and not just of "overpricing". The former implies the comparison between price and costs, while the latter implies a comparison of prices. In addition to aspects of relative magnitude, important conceptual and measurement considerations are involved. In the case of standardized products, such as natural or synthetic rubber, certain chemicals, specific synthetic fibres, various electronic components specified by nomenclatures, etc., "overpricing" can be estimated. But, in the case of differential goods, estimates are extremely difficult and, in practice, probably meaningless. Furthermore, one can ask what is the relevance of "overpricing" in the case of a monopoly or a cartel market structure where prices or price mark-ups are fixed accordingly. On the other hand, the comparison between prices and costs to determine net generated income begs the question of what are the costs. How should overhead costs be apportioned at the international level?

33. These conceptually perplexing questions indicate the need for further work on the subject which will place the approach to technology purchase and foreign direct investment within a bargaining framework. Diverse and complementary policies, such as price ceilings for standardized products or direct negotiations on the pricing of diversified ones, etc., constitute some of the necessary steps to be taken by recipient countries, in the light of the particular characteristics of the industry concerned. A major indirect mechanism that appears to reduce overpricing rests on tariff levels on imported intermediate products. Yet, such tariff levels cannot be considered independently of those affecting the final product or of the over-all commercial policies which, through the effective protection¹¹ they create, generate returns and determine the competitiveness of domestic production. What remains evident, though, from our analysis is that the study of the cost of technology (particularly when it is obtained through foreign-owned subsidiaries) cannot be limited to explicit payments such as royalties but should also include considerations of the often much more important implicit charges incurred through import or export product pricing.

D. OTHER TYPES OF RESTRICTIVE CLAUSES

34. To understand the meaning and repercussions of a contract one has to evaluate it in its totality. Often terms that are defined in clause "x" are conditioned or modified by clause "y". Also, without explicitly stating something so as not to violate local legislation one can achieve certain purposes through indirect, legally accepted means. For example, through certain quality clauses one can indirectly affect volume of production or control

¹¹ Protection given to net output (i.e. value added) of an industry by the whole structure of tariffs, taxes and subsidies, taking into account the effect of taxes and tariffs on intermediate goods as well as protection given by tariffs on final goods.

sources of intermediates. Or through the control of the volume of production (which is permissible under certain patent legislation) one can control the volume of exports (which is not permitted by the same patent legislation). Restrictive clauses in contracts for the commercialization of technology are of various types. For example, in Bolivia out of 35 contracts analysed (and in addition to the export restrictions and tie-in clauses on intermediates cited above) the following terms were included: 24 contracts tied technical assistance to the use of patents or trade-marks and vice versa; 22 tied additional know-how needed to the present contracts; three fixed prices of final goods; eleven prohibited production or sale of similar products; 19 required secrecy on know-how during the contract and 16 after the end of the contract; five specified that any dispute or arbitration should be settled in the courts of the country of the licensor. Also, 28 out of the 35 cases contractually stipulated quality control by the licensor. Similarly in Chile out of 175 contracts 98 had clauses for quality control by the licensor, 45 controlled the volume of sales and 27 the volume of production. In Peru, of 89 contracts, 66 provided for the control of the volume of the licensee's sales. Some clauses prohibited the sale of similar or the same products after the end of the contract. Others tied the sale of technology to the appointment of key personnel by the licensor.

35. The list of clauses included in contracts for technology commercialization and their impact on business decisions prompt the question as to what crucial policies are left in the control of the ownership or management of the recipient firm. If the volume, markets, prices and quality of what a firm sells, if the sources, prices and quality of its intermediates and capital goods, if the key personnel to be hired, the type of technology used, etc.—if all these are left under the control of the licensor, then the only basic decision left to the licensee is whether or not to enter into an agreement for the purchase of technology. Technology, through the present process of its commercialization, becomes thus a mechanism for controlling the recipient firms. Such control supersedes, complements or replaces that which results from ownership of the firm's capital. Political and economic preoccupations that have been voiced in Latin America concerning the high degree of foreign control of domestic industry can properly be evaluated not only within the foreign direct investment model but also within the mechanism of technology commercialization. It is for this reason that the term "technology transfer" is considered in the present paper as one that inappropriately represents the phenomena involved and their implications.

36. An additional issue needs to be mentioned. The type of clauses found in contracts for the commercialization of technology violate basic anti-monopoly or anti-trust legislations in the home countries of the licensors. Since the extraterritoriality of laws is in general not applicable (at least operationally), it befits the technology-receiving countries to legislate and regulate accordingly so as to protect the interests of the purchasing firms. Industrialized countries have in the last half century, or even earlier, defined in one way or another in their legislation the extent to which private contracting and the exercise of business power can operate within a

market mechanism.¹² Developing countries have still to show an adequate understanding of the issues involved in their commercial laws, those that regulate industrial property, etc. As will be seen in the next chapter, the mechanism for the commercialization of technology cannot function adequately so as to protect the interests of the comparatively smaller and weaker national firms without the existence of concomitant legislation that defines the extent of acceptance of terms negotiated by large foreign multinational corporations.

E. THE ROLE OF GOVERNMENT NEGOTIATING COMMITTEES

37. On various occasions earlier in this paper it was pointed out that the market for the commercialization of technology is best described within a bargaining framework. Given this premise and the fact that a large part of foreign know-how is introduced through the establishment of foreign-owned subsidiaries, it can be concluded that such firms lack even a minimum negotiating position since their interests are, presumably, identified with those of their parent corporation and not with the host country. For example, it is not uncommon to find cases where a foreign wholly-owned subsidiary has capitalized in its books technology that originated from the parent corporation. As a result it could be (a) paying royalties, (b) reducing its tax payments through depreciation "charges" on intangible assets, (c) benefiting from lower tax coefficients in countries where taxable profits are related to "invested" capital, and (d) claiming higher capital repatriations, all for the same know-how. Clearly a foreign-owned subsidiary does not need to capitalize technology since 100 per cent of its capital is already owned by its parent. Thus, unless a government body intervenes between the "private contracting" of a parent and a subsidiary, the distribution of returns from the use of technology is likely to be only one-sided.

38. Similarly, even among independent firms the difference in relative size between multinational corporations and companies in developing countries is such, and the relative cost considerations so different, that the strengthening of the bargaining power of the purchaser can only be achieved through government action. Such action is based on the power a government enjoys in permitting or rejecting access to the domestic market. This type of power is seldom wielded by private firms and its exercise can be quite effective in the confrontation of different types of power at the disposal of multinational corporations. From the second half of 1967 to June 1971 the Committee on Royalties (*Comité de Regallas*) of Colombia has evaluated 395 contracts of technology commercialization. Of these, 334 were negotiated, modified and finally approved and 61 were rejected. In the process of negotiation, payments of royalties were reduced by about 40 per cent or about \$8 million annually. The size of

¹² As far as tie-in restrictions are concerned, see section I of the Sherman Act and section 3 of the Clayton Act of the United States. On similar and related issues (such as export restrictions), see article 85 (1) of the Treaty of Rome establishing the European Economic Community, article 37 of the 1945 Price Ordinance of France, the Economic Competition Act of 1958 of Netherlands, the Anti-monopoly Law of Japan, etc.

the reduction of annual royalties in Colombia through government negotiation is equivalent to the total annual payments for technology reported for the whole economy of Chile. Also, during the latter part of 1970 and the beginning of 1971 negotiations undertaken by the same Committee served to:

- (1) Reduce by 90 per cent the tie-in clauses in the purchase of intermediates;
- (2) Eliminate 100 per cent of the restrictive export clauses;
- (3) Eliminate 80 per cent of the clauses on minimum royalty payments;
- (4) Prohibit payments of taxes by the licensee on royalties remitted to the licensor; and
- (5) Establish maximum percentage royalty rates by sectors.

39. These significant achievements by the Committee on Royalties have to be qualified in the following way. As far as foreign-owned subsidiaries are concerned, reduction in royalty payments could result either in higher profits which could be remitted after payment of local taxes or they could be passed on to the parent firm through inter-affiliate transfer pricing. Furthermore, the exclusion of clauses from the contract of a subsidiary does not mean that the practices involved will be abolished, since control through ownership could still dictate the same practices. As far as nationally-owned firms are concerned, it is known that in some cases after such government intervention "gentlemen's agreements" exist, extra-contractually, between licensors and licensees. Nevertheless, in other cases government intervention has resulted in known benefits for nationally-owned firms.

40. Up to the end of 1970, when decision No. 24 of the Commission of the Andean Pact was approved, only Colombia and Chile had government negotiating committees for technology, patents and trademarks while Bolivia, Ecuador and Peru lacked such bodies.¹³ The major negotiating deficiencies of the Colombian and Chilean committees are cited below. First, they lacked an adequate legal backing to deal with restrictive business practices imposed through bargaining by foreign know-how and patent licensors. For example, up to 1969 the Colombian Committee on Royalties was not equipped to control major restrictive practices included under negotiated contracts.

41. Yet, in 1970 through specific government action and reinforced by the provisions on commercial and other practices included in decision No. 24 at the end of that year, the Committee was able to enhance its negotiating scope and power. Similar experience was cited in Chile. The actual name of these committees indicates the initial limitations of their activities. They were designed solely to control payments or fees, and that only in the light of balance-of-payments considerations, excluding the broader and often more important effects of other clauses in contracts for the commercialization of technology. Second, as the evaluation of contracts in

the rest of the countries of the Andean Pact has also confirmed, payments of royalties in more than 95 per cent of the cases examined are expressed as a percentage of sales and not in terms of profits or value added. As a result, among others, the more inefficient a firm is and the more it passes such inefficiency on to the consumer in the form of higher prices and/or the higher the protective tariff levels are on the goods produced, the higher are the royalties paid for foreign technology. Articles incorporated in decision No. 24 (as enacted in very recent legislation in Argentina) have attempted to correct this situation. Finally, a major limitation of existing government negotiating committees is that their bargaining power is significantly limited by very inadequate information systems. For example, no prior search is made for alternative sources of technology supply by combing international market availabilities. Similarly, minimum conditions exist for the evaluation of the technological and broader economic impact of the imported technology.

F. CONSIDERATIONS ON THE STRUCTURE AND EFFECTS OF PATENT SYSTEMS¹⁴

42. The economic impact of patents stems from the monopoly privileges granted by the State to owners of inventions that are industrially useful. Such privileges are granted on the basis of the traditional assumption that patents provide a necessary incentive or compensation for inventive activity. Also, through patent disclosure, or the guarantee of monopoly, etc., it is assumed that sufficient incentives are given for applying inventions in commercially beneficial industrial activities. In addition, in terms of over-all effects on the country (leaving distributional effects aside) it is assumed that the monopoly costs to consumers and to other producers are smaller than the benefits that accrue from promoting inventive and investment activities through patents. It is important to clarify that these arguments do not apply to inventions and investments *per se*, but apply to the role of monopoly privileges in such activities. Monopoly privileges granted by patents are clearly intended to give a price incentive to inventions. Prices reflect the level of relative scarcity. Patents, granting a monopoly of their use (or use under licence), create scarcity by limiting the availability of inventions, although an invention is by its nature an "inexhaustible" entity in terms of number or times of use. To a certain extent, prices are attached to use of inventions not because of their scarcity but in order to make them scarce to possible users. A patent diminishes the possible use of an invention with the object of generating an economic rent.¹⁵ In order to understand the effect of patents on developing countries we need to stress three aspects.

¹⁴ The basic ideas in this part are described by C. V. Vaitos in "Patents revisited: their function in developing countries" (to appear shortly in the *Journal of Development Studies*).

¹⁵ *Ibid.* pp. 3-4; also E. T. Penrose, *The Economics of the International Patent System*, Baltimore, The Johns Hopkins Press, 1951, p. 29; and A. Plant, "The economic theory concerning patents for inventions", *Economica*, February 1934, p. 31.

¹³ For the text of the relevant articles of the decision, see the annex to the present document.

1. Foreign origin of patents

43. The patents granted in developing countries are almost entirely of foreign origin. The following table presents comparative data on the number of patents of foreign origin as a percentage of the total patents granted by various countries in the years 1957-1961.

"Large" industrial countries

	Percentage
United States	15.72
Japan	34.02
Federal Republic of Germany	37.14
United Kingdom	47.00
France	59.36

"Smaller" industrialized countries

Italy	62.85
Switzerland	64.08
Sweden	69.30
Netherlands	69.83
Luxembourg	80.48
Belgium	85.55

Developing countries

India	89.38
Turkey	91.73
Egypt	93.01
Trinidad and Tobago	94.18
Pakistan	95.75

Source: *The Role of Patents in the Transfer of Technology to Developing Countries*, United Nations publication, Sales No. E.65.II.B.1, pp. 94-95.

44. Furthermore, if the number of patents granted by developing countries is weighted by their economic value (for example, by the volume of sales they represent or their value added) the weighted percentage of patents of national origin will probably be less than 1 per cent. Thus, whenever we talk about patents granted by developing countries and the policies that should regulate them, we really refer to patents belonging to foreign companies or foreign nationals.

45. The experience of the large industrialized countries has not indicated, relatively, any major change in the percentage of patents of foreign origin. For example, the following table shows patents of foreign origin as a percentage of total patents granted by the countries listed.

Countries	1940	1957-1961
	Percentage	Percentage
United States	10	16
Japan	25	34
Federal Republic of Germany	25	37
United Kingdom	50	47
France	50	59

Source: John A. Diegger, "Patent policy: a discussion" in *American Economic Review, Papers and Proceedings*, vol. 38, May 1948, p. 257, and preceding table.

46. On the contrary, the patents granted by developing countries have experienced a progressive denationalization during recent periods. The following table indicates the Chilean experience in the matter.

Patents granted in Chile according to origin (Percentages)

Year	National	Foreign
1937	34.5	65.5
1947	20.0	80.0
1958	11.0	89.0
1967	5.5	94.5

Source: CORFO, "La propiedad industrial en Chile y su impacto en el desarrollo industrial", Santiago, Chile, September 1970.

2. Patents and concentration of economic power

47. An important change has taken place in the structure of the ownership of patents in the industrialized countries as well as in developing ones. The majority of patents are owned not by individual inventors but by large transnational corporations. The latter use patents for their global business policy. This change in the structure of the ownership of patents has, in turn, resulted in the concentration of patents in the control of a relatively very small number of multinational firms. For example, 50 per cent of all patents which were obtained by companies and whose corresponding research was financed by the Federal Government of the United States between 1946 and 1962 belong to twenty firms.

48. Furthermore, of all patents resulting from research that was financed by private firms as well as by the Federal Government during the same period in the United States, 35.7 per cent belonged to less than 100 firms.¹⁶ Since the patents granted in developing countries are almost all of foreign origin, they also reflect the same type of concentration. In Colombia less than 10 per cent of all the firms that obtained patents in the pharmaceutical industry controlled in 1970 more than 60 per cent of all the patents in that sector. The same percentage applies in the case of samples of patents in synthetic fibres and chemicals.¹⁷

49. The consequence of the concentration of patents in the hands of a small number of firms is that patents are to a large extent directed towards control of the market so as to maximize the over-all interests of a small number of firms enjoying industrial property privileges. This market control and monopolistic concentration is reinforced through the system of cross-licensing among companies, which in turn breaks down a world-wide oligopolistic structure into one of regional monopolies.

3. Lack of direct exploitation of patents in developing countries

50. Not only do patents granted by developing countries belong almost entirely to foreign companies but, in addition, they are not in practice exploited in the countries concerned. For example, in Peru of 4,872 patents

¹⁶ See D. S. Watson and M. A. Homan, "Concentration of patents from government-financed research in industry", *The Review of Economics and Statistics*, vol. XLIX, August 1967, p. 1.

¹⁷ Based on data collected by Timoléon López and F. Castañón from the Colombian Industrial Property Office in connexion with studies of technology transfer in the Andean Common Market area.

granted between 1960 and 1970 in the electronics, textile, machinery and equipment, chemicals, food processing, pharmaceuticals, fishing, metal processing, transport equipment and other sectors, only 54 were registered as being exploited, i.e. less than 1.1 per cent of the total. Similarly in Colombia, out of a total of 3,513 patents evaluated (2,534 of which belong to the pharmaceutical sector and the rest to the textiles and chemicals sectors), only ten were being exploited in that country. The lack of exploitation of patents in developing countries contributes basically to the preservation of secure import markets for multinational corporations, limiting to that extent any possible competition by other companies, foreign or national. The repercussions of this lack of competition could imply significant price increases, with negative income and balance-of-payments effects on the countries concerned.

51. To a large extent technology is sold to developing countries and foreign investments are made as a defensive strategy to avoid loss of markets for owners of technology and capital. Thus, a company will tend to sell technology to a given country not because of assured monopoly privileges but because if it did not sell someone else would do so, and thus replace the company. Because monopoly privileges, extended through patents, restrict competition and because almost all patents appear not to be exploited in the patent-granting developing countries, patents, in this sense, restrict the flow of technology and limit the attraction for foreign investments. When foreign investments are made, patents become one of the instruments by which national companies are acquired by foreign ones through the monopoly privileges extended under the existing patent system.

52. The mechanisms that have been introduced in the legal systems of the Andean countries (which reflect more or less world-wide practices) so as to correct existing policies in the patent system have proved to be quite inefficient or inoperative. One of the basic reasons for the inefficiency (like that of the process of obligatory licensing) is the long and expensive legal procedure through which the present patent system is administered. Because the corrective measures are not automatic and because legal procedures are long and costly, the financially stronger multinational corporations have an advantage over the relatively weaker national firms. These considerations have led to the conclusion that the existing patent system needs a total reappraisal so as to correct the inadequacies which appear to have negative effects particularly on the economies and interests of developing countries.

Chapter III

Policies on technology commercialization under decision No. 24 of the Commission of the Andean Pact¹⁸

53. In December 1970 the Commission of the Andean Pact, having considered the experience of the five countries in the process of purchasing foreign technology,

established a series of policies which, through legislation as well as institutional arrangements, will regulate the mechanism of the acquisition of technology. These policies were proposed jointly and they conform to the over-all philosophy and procedures applicable to foreign direct investments, since a large part of the contractually obtained know-how is acquired through foreign-owned companies. The trend of these policies cannot, therefore, be adequately analysed without an understanding of the policies towards foreign investments in general. For example, the progressive national participation in the ownership of foreign subsidiaries that operate in the Andean market will enable national investors to play an increasing part in the use of foreign technology within the sub-region. Ownership of a firm does not mean a non-functional participation in the assets of a firm but rather implies control of and profit-earning from the operations and use of such assets.

54. Similarly, the policies regarding technology and foreign investments set out in the decision of the Commission of the Andean Pact can be understood properly only in the context of the economic objectives of the Andean integration. For example, the scope offered by an enlarged market, supported by special policies, changes the opportunities and hence affects the bargaining power of the Andean countries. This, in turn, results in the re-formulation of policies vis-à-vis the rest of the world. Equally, the explicit use of common planning by the five countries, within the framework of complementary industrial projects, affords the opportunity of collective bargaining with foreign investors and suppliers of technology.

55. An evaluation of these broader economic issues and their underlying political implications necessitates much more space than is afforded in the present paper. We shall therefore limit ourselves to a brief description of the scope of policies explicitly directed towards technology, while acknowledging that understanding of them calls for a broader comprehension of other inter-related political and economic phenomena. We shall divide our analysis into three parts: (a) institutional structure for the importation of technology; (b) management of technology commercialization; (c) complementary policies and programmes for the future.

A. INSTITUTIONAL STRUCTURE FOR THE IMPORTATION OF TECHNOLOGY

56. Decision No. 24, in article 6, refers to the establishment of government agencies which, in each country, will regulate the application of and execute all relevant policies concerning imports of technology together with the policies relating to foreign investments. In this sense, previous policies in Chile and Colombia which, through the respective Committees on Royalties, were primarily concerned with balance-of-payments effects, will be strengthened to cover the much broader considerations related to technology commercialization and foreign investments. For Bolivia, Ecuador and Peru, the terms of article 6 imply the establishment of completely new government agencies which were non-existent hitherto.

57. Under article 18, these government agencies are authorized to evaluate and approve all contracts for techno-

¹⁸ For the text of the relevant articles, see the annex to the present document.

logy commercialization and for the licensing of industrial ownership privileges (patents, trademarks, industrial models and designs, etc.). Thus, article 18 will enable the Governments to strengthen and complement the bargaining power of the nationally-owned firms through the machinery for approving the access of foreign technology to the local market. Equally, the Governments will represent the over-all national interests in cases where technology contracts are negotiated between foreign-owned subsidiaries and their parent companies. In the course of negotiations, as indicated by article 19, the elements of the imported technology will be itemized (production manuals, factory specifications, products incorporating the technology, expert technical assistance, etc.), in order that the contractual value of each item or group may be evaluated.

B. THE MANAGEMENT OF TECHNOLOGY COMMERCIALIZATION

58. The importation of intermediate products and capital goods for purposes of technology commercialization and foreign direct investments were recognized as key elements within the present industrialization programmes. As provided in article 6 (c), the Andean countries will establish an information and control system with the object of bringing the prices of such imports within acceptable ranges, close to international market prices. In the course of this process, monopolistic structures, resulting from the joint transfer of products tied to technology and/or capital imports, will be subject to regulation. As far as nationally-owned firms are concerned these provisions, applied to standardized imported products, will have important effects on bargaining by excluding prices of such imports from the negotiable terms. For highly differentiated products for which quotations are lacking in other markets, progressive national participation in the ownership of foreign companies could, through intra-company bargaining, achieve similar results.

59. Importation of know-how, according to article 21, is compensated by the payment of royalties by nationally-owned firms to their foreign licensors and by an increase in the profitability of foreign-owned subsidiaries in the Andean countries. The capitalization of imported know-how is not permitted. In this way decision No. 24 attempts to restrict the denationalization of the ownership structure of national firms. In previous years such denationalization was achieved not by direct contributions to the investment and/or foreign exchange availabilities of the host countries (since no capital was exchanged) but by the capitalization of know-how¹⁹ already being remunerated by royalty payments. As far as foreign-owned subsidiaries are concerned, know-how capitalization was leading to domestic tax reductions through depreciation "charges" on intangibles as well as capital repatriation claims. In such cases, therefore, technology capitalization constituted a depletion of the capital of the host country

through the repatriation of non-existing "investments", rather than a contribution to capital formation.

60. Under article 21 the payment of royalties by a subsidiary to its parent or other affiliates will not be permitted. Such a policy, which is also applied in various other countries, is based on the principle that the effect of technological inputs in a foreign-owned subsidiary should be reflected in its declared profitability rather than transferred to another country's tax jurisdiction. Royalty payments among affiliated firms achieve tax reductions in the royalty-paying country and could also reduce the tax liability of the entire multinational corporation concerned. Tax avoidance and the economic and political behaviour reflected in the under-declaration of true profitability run counter to the national interest of the host countries.

61. In order to increase the information available about technology commercialization and thus strengthen the bargaining power of the recipient countries as well as improve the conditions of its use, article 48 establishes a permanent system for the exchange of information among the five Andean countries about the terms and impact of the purchase of technology. This constitutes the first step towards the application of the "most-favoured-nation" principle in the purchase of technology. It is directed toward overcoming monopoly rents accruing from market segmentation under conditions of varying elasticities of demand for technology, unequal availability of knowledge and various degrees of bargaining power by the firms acquiring technology.

62. Articles 20 and 25 establish for the first time in the countries of the Andean Pact a legal base for dealing with restrictive business practices resulting from the purchase of technology and from the licensing of patents and trademarks. Export restrictions, tie-in arrangements, control of the size and structure of production, the hiring of personnel, the use of alternative technologies, etc., are regulated by these articles. Owing to the absence of comprehensive anti-monopoly legislation, which is attributable partly to the lack of adequate analysis of the effects of monopoly and economic concentration in developing countries (the size of whose markets often conduces to monopoly), specific legislation is needed to curb restrictive business practices in the sale of technology.

63. Pursuant to articles 26 and 54, by the end of 1971 new legislation is to be enacted to regulate matters relating to industrial property. The inadequacy of the existing patent system and the international agreements that regulate it (whose fundamentals were introduced in the last century under completely different circumstances and needs) demonstrate the need for a new approach to these matters. The interests of developing countries should be protected at least under their own legislation.

64. Article 51 establishes the important principle that any controversy or dispute connected with the purchase of technology or foreign direct investments should be dealt with under the jurisdiction and within the competence of the host country. (The importance of this provision becomes clear if one compares it with counter-proposals offered by international organizations.) In addition, article 51 deals with subrogation.

¹⁹ Acquisition of equity participation in place of other means of remuneration for the transfer of technology.

C. COMPLEMENTARY POLICIES AND PROGRAMMES FOR THE FUTURE

65. Articles 22, 23 and 55 provide that by November 1972 a comprehensive legislative and institutional programme relating to technological policies is to be established by the Andean countries. The objective of such a programme is to relate policies regarding the importation of technology to the development and promotion of domestic technological activities. This will imply the setting of priorities as well as the definition of types and projects related to diverse technological activities. Furthermore, such activities will be coupled with fiscal, monetary and direct incentives so as to encourage and aid them. Various institutional measures will be required, including a systematic and continuous search in the international market for alternative technologies, the establishment of information systems, aid to domestic efforts for technological development and the creation of appropriate machinery to direct and promote related activities. A central consideration will be the effect of the development and use of technology on employment and on the exploitation of natural resources in the Andean countries.

ANNEX

Articles relating to the commercialization and production of technology in decision No. 24 of the Commission of the Cartagena Agreement*

(Extracts)

Article 6. Control over the fulfilment of the obligations entered into by foreign investors shall be exercised by the body which registers the investment, in co-ordination with the competent State departments or agencies in each case.

In addition to the functions referred to in other provisions of this régime and to those laid down in the corresponding regulations, the competent national body shall:

...
(c) Establish an information and control system with respect to the prices of intermediate products furnished by the suppliers of technology or foreign capital;

...
(f) Authorize licensing agreements for the use of imported technology and the exploitation of trademarks and patents.

Article 18. All agreements relating to the import of technology and to trademarks and patents shall be examined and submitted for the approval of the competent body of the member country concerned, which shall evaluate the effective contribution of the imported technology on the basis of an estimate of the benefits likely to be obtained there from the price of goods incorporating the technology, or other specific methods of quantifying the impact of the imported technology.

Article 19. Agreements relating to the import of technology shall, as a minimum, include clauses on the following matters:

(a) Definition of the forms in which the imported technology is to be transferred;

(b) The contractual value of each of the elements involved in the transfer of technology, expressed in terms similar to those used for the registration of direct foreign investment; and

(c) Specification of the period of validity.

Article 20. Member countries may not authorize the conclusion of agreements relating to the transfer of foreign technology or to patents if the agreements contain:

(a) Clauses whereby the provision of technology carries with it the obligation, for the recipient country or enterprise, to purchase capital goods, intermediate products, raw materials or other forms of technology from a particular source, or to make permanent use of staff designated by the enterprise supplying the technology. In exceptional cases, the recipient country may accept clauses of this kind relating to the purchase of capital goods, intermediate products or raw materials, provided that the price of the articles is consonant with current price levels in the world market;

(b) Clauses whereby the enterprise selling the technology reserves the right to fix the selling or re-sale price of the products manufactured on the basis of the technology in question;

(c) Clauses containing restrictions on the volume and structure of production;

(d) Clauses prohibiting the use of competing technologies;

(e) Clauses establishing a total or partial purchasing option in favour of the supplier of the technology;

(f) Clauses requiring the purchaser of the technology to transfer to the supplier any inventions or improvements obtained through the use of the technology;

(g) Clauses requiring the payment of royalties to patentees in respect of unexploited patents; and

(h) Other clauses of equivalent effect.

Save in exceptional cases duly defined by the competent body in the recipient country, clauses prohibiting or limiting in any way the export of products manufactured on the basis of the technology in question shall not be accepted.

In no case shall clauses of this kind be accepted in respect of sub-regional trade or the export of similar products to third countries.

Article 21. Subject to authorization by the competent national body, intangible technological contributions shall give entitlement to the payment of royalties, but may not be treated as a capital contribution.

Where such contributions are made to a foreign enterprise through its parent company or through another subsidiary of the same parent company, the payment of royalties shall not be permitted nor may any deduction be made on that account for tax purposes.

Article 22. The national authorities shall undertake a continuous and systematic investigation of the technologies available in the world market for the different branches of industry in order that solutions most favourable and appropriate to the economic conditions of the sub-region may be selected, and shall transmit the results of their work to the Board. This work shall be co-ordinated with the measures adopted under chapter V of this régime with respect to the production of national or sub-regional technology.

Article 23. At the request of the Board, the Commission shall approve, by 30 November 1972, a programme designed to promote and safeguard the production of sub-regional technology, and the adaptation and assimilation of existing technologies.

This programme shall, *inter alia*, provide for:

(a) Special fiscal or other incentives to stimulate the production of technology and, in particular, of technologies relating to the intensive use of sub-regional inputs or designed for the efficient utilization of sub-regional production factors;

(b) The promotion of exports to third countries of products manufactured on the basis of sub-regional technology; and

(c) The channelling of domestic savings into the establishment of sub-regional or national research and development centres.

Article 24. The Governments of member countries shall give preference in their purchase to products incorporating sub-regional technology in such a manner as the Commission may deem appropriate. At the request of the Board, the Commission may propose to member countries that taxes be levied on products using foreign trademarks involving the payment of royalties where the technology in their manufacture employed is in the public domain or is readily accessible.

* Unofficial translation from Spanish.

Article 25. Licensing agreements for the use of foreign trademarks in the territory of member countries may not contain restrictive clauses of the following kinds:

- (a) Clauses prohibiting or limiting the export or sale to specific countries of products manufactured under the trademark in question or of similar products;
- (b) Clauses requiring the use of raw materials, intermediate goods and equipment supplied by the owner of the trademark or his affiliates. In exceptional cases, the recipient country may accept clauses of this kind, provided that the price of the articles in question is consonant with current world market prices;
- (c) Clauses fixing the selling or re-sale price of products manufactured under the trademark;
- (d) Clauses requiring the payment of royalties to the owner of a trademark in respect of unused trademarks;
- (e) Clauses requiring the permanent use of staff provided or designated by the owner of the trademark; and
- (f) Other clauses of equivalent effect.

Article 26. At the request of the Board, the Commission may specify the production processes, products or groups of products in respect of patent privileges which may not be granted in any member country. It may also decide on the treatment of existing privileges.

Article 48. Member countries undertake to keep each other and the Board informed concerning the application of this régime in their respective territories and, in particular, concerning the provisions of chapter II. They similarly undertake to establish a permanent system for the exchange of information on permits granted in their territories for foreign investment or for the import of technology with a view to facilitating a fuller harmonization of their policies and increasing their bargaining power so as to obtain for a recipient country terms no less favourable than those negotiated in similar cases with any other member country.

They further undertake to co-ordinate closely their activities in international organizations and forums dealing with matters relating to foreign investment or the transfer of technology.

Article 51. No instrument relating to investment or the transfer of technology may include clauses removing possible disputes or controversies from the national jurisdiction and competence of the recipient country or permitting subrogation by Governments of the rights and shares of their national investors.

Differences among member countries in the interpretation or application of this régime shall be settled in accordance with the procedure laid down in chapter II, section D—"Settlement of disputes", of the Cartagena Agreement.

Article 52. In accordance with the provisions of this régime and of chapter II of the Cartagena Agreement, the respective functions of the Commission and the Board shall be as follows:

...

The Board

- (a) To supervise the application and observance of the régime and of the relevant regulations approved by the Commission;

- (b) To centralize the statistical, accounting or other data supplied by member countries concerning foreign investment or the transfer of technology;

- (c) To compile and transmit to member countries economic and legal information on foreign investment and the transfer of technology;

- (d) To propose to the Commission the measures and regulations required for the best possible application of this régime.

Article 54. The member countries shall set up a sub-regional Industrial Property Office with the following functions:

- (a) To serve as a liaison body between the national industrial property offices;

- (b) To compile information on industrial property for circulation to national offices;

- (c) To draw up model licensing agreements for the use of trademarks or the exploitation of patents in the sub-region;

- (d) To advise national offices on all matters concerning the application of the common standards relating to industrial property laid down in the regulations referred to in provisional article G;

- (e) To carry out studies and submit recommendations to member countries on patents for inventions.

Article 55. At the request of the Board, the Commission shall establish a sub-regional system for the promotion, development, production and adaptation of technology, which shall also be responsible for centralizing and circulating to member countries the information referred to in article 22 of this régime, together with any information it may obtain directly on the same subjects and on conditions for the commercialization of technology.

Article C. Pending the entry into force of the regulations referred to in provisional article G of this régime, member countries shall abstain from the unilateral conclusion of agreements on industrial property with third countries.

Article D. Within three months of the entry into force of this régime, each member country shall appoint the body or bodies to be responsible for the authorization, registration and supervision of foreign investment and the transfer of technology, and shall inform the other member countries and the Board accordingly.

Article E. All agreements relating to the import of technology and to licences for the use of foreign trademarks and patents concluded prior to the date of the entry into force of this régime shall be registered with the competent national body within six months of that date.

Article F. Within six months of the entry into force of this régime, the Commission, at the request of the Board, shall approve the rules of the Sub-regional Industrial Property Office.

Article G. Within six months of the entry into force of this régime, the Commission, at the request of the Board, shall adopt regulations for the application of the standards relating to industrial property, which shall cover, *inter alia*, the matters listed in annex No. 2.

PROCEEDINGS OF THE THIRD SESSION OF THE UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Contents of the series *

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United Nations publication, Sales No. E.73.II.D.6.

¹ United Nations publications, Sales Numbers 72.II.D.15, 72.II.D.13 and corrigendum and 72.II.D.17 respectively.

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