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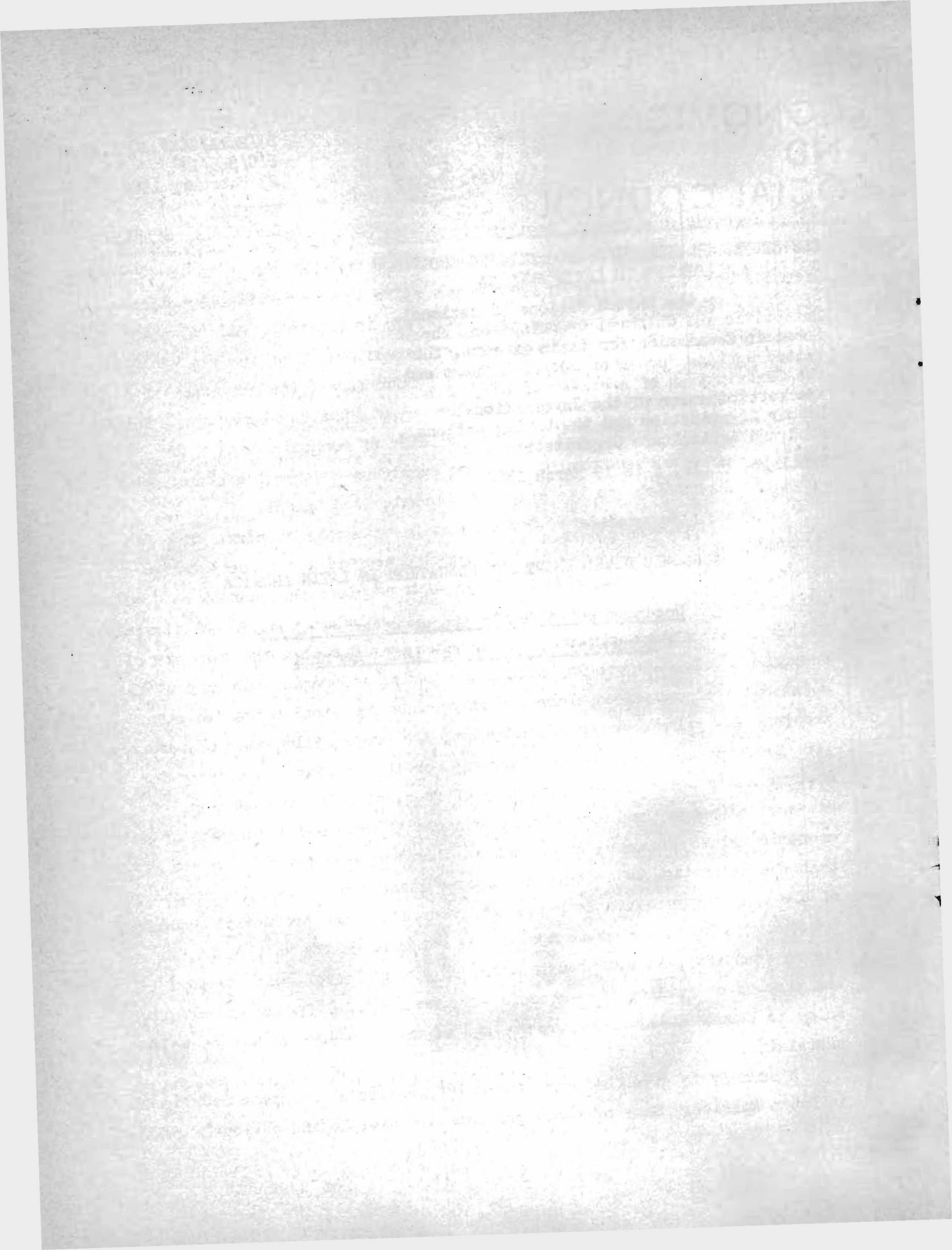
CONFERENCE ON EDUCATION AND ECONOMIC AND
SOCIAL DEVELOPMENT IN LATIN AMERICA

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ECONOMIC DEVELOPMENT AND EDUCATION IN LATIN AMERICA

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Economic Commission for Latin America



INTRODUCTION

Economic development represents the attempt to raise the per capita income level. The achievement of a sustained rate of growth in an economy depends upon its ability to produce a surplus over current consumption needs and to employ this surplus effectively in expanding and improving productive capacity by means of capital formation; upon the availability of an appropriately trained and mobile labour force, the extension of markets to absorb the growing volume of output, the development of public and private bodies oriented towards policies of economic growth, and lastly, upon the economy's ability and readiness to absorb technological advances appropriate to its stage of economic development.

However, the process of development is extremely complex. The economic, political and social influences concerned are closely interwoven, and thus the economist is faced with problems that cannot be dealt with by means of the traditional analytical tools and that do not strictly belong to his sphere of activity. Economists agree that the main aim of economic development should be to raise living standards, but many of them point out that economics alone cannot provide the final answer to such problems as optimum income distribution, the proper allocation of resources for education and other social services, or the standards necessary for meeting man's basic needs in the way of food, clothing and housing. However, although the solutions to such social problems may depend on non-economic values, economic programming - whose main purpose is to see that the allocation of resources promotes these aims - should take account of the many interrelations between human welfare and productive capacity. The aim must be to integrate social and economic policy so that higher living standards, in addition to being an aim in itself, will be part of the process of guiding the economic and institutional system and climate so as to ensure steady development, and so that development can be self-sustaining.

A summary is given below of the main problems of economic development in Latin America. Some of these problems are closely and obviously related

/to education;

to education; the connexion in other cases is more remote. Nevertheless, all these questions should be taken into account in trying to obtain a balanced view of the part that education can play in the economy and of the optimum allocation of resources to education.

I. ECONOMIC FEATURES OF THE REGION

1. Present stage of economic development in Latin America

(a) Per capita income levels

Average per capita income is an approximate indicator of the level of social welfare, since it enables an estimate to be made of the goods and services that go to meet the needs of families for food, clothing, housing and services in general, the social needs; and those in the field of public administration. This macro-economic concept also includes the volume of goods allocated for the maintenance of the existing capital and the formation of additional productive capacity. Calculations of income can only be approximate, because of the theoretical and practical difficulties in making such measurements, and above all in establishing internationally comparable estimates to determine relative differences in levels of living. If the international position of the Latin American countries is judged on this basis, it is seen to be a long way from that of the industrialized countries of the Western Hemisphere and Europe, and even that of countries in other parts of the world; the Latin American countries belong to the vast section of the world's population that lives in highly unsatisfactory conditions. Despite the inaccuracy of the statistical estimates, table 1 shows that the average per capita income of 300 dollars for Latin America as a whole represents a third of the corresponding figure for Western Europe^{1/} and one-seventh of that for the United States and Canada considered together.

^{1/} See note to table 1.

Table 1

WORLD PER CAPITA DISTRIBUTION OF NATIONAL INCOME AND POPULATION,
 BY REGIONS, 1957

Region	Per capita income	Population	
		Percentage of world population	Cumulative percentage
North America	2 050	9	9
Oceania	1 090	1	10
Countries members of the European Organization for Economic Co-operation and Development (OECD)	690	14	24
Eastern Europe	490	14	38
Latin America	280	8	46
Middle East	240	3	49
Africa	120	4	53
Asia	100	47	100

Sources: S. Andic and A.T. Peacock, "the International Distribution of Income, 1949 and 1957", Journal of the Royal Statistical Society, Series A (General), Volume 124, Part 2, 1961; P.N. Rosenstein-Rodan, "International Aid for Underdeveloped Countries", The Review of Economics and Statistics, Vol. XLIII, No. 2, May 1961.

Note: The indicator adopted is the gross domestic product at market prices, and the parity purchasing power of European and Latin American currencies in relation to the dollar is also taken into account, the ratio as between the Latin American countries and the members of the European Organization for Economic Co-operation and Development being 1 to 3; i.e., the 1955-59 average for the per capita gross domestic product was 300 dollars for the first group of countries and 900 for the second. See ECLA, The demographic, economic, social and educational situation in Latin America (ST/ECLA/CONF.10/L.4), January 1962, table 2, p. 15.

/Although the

Although the notion of average per capita income for the region as a whole is used, there is no suggestion that the various countries belonging to it have reached the same stage of economic development. On the contrary, the countries of the region vary widely with respect both to the level of economic progress and to the nature of the economic and social structure. The range in per capita income for the twenty countries is enormous. At one extreme is Venezuela, largely as a result of the intensive exploitation of its vast petroleum resources, with a gross product representing 1,000 dollars per capita; at the other extreme are Haiti and Bolivia, each with estimated per capita incomes of less than 100 dollars. Table 2 shows that on the basis of average incomes by country, for 35 per cent of the population of Latin America per capita income is less than 200 dollars, and for only 15 per cent is it more than 500 dollars. The countries with income levels that are above the regional average are those in the temperate zone of the continent, where the process of economic development began earlier or proceeded more rapidly. In recent years, however, as will be shown below, the growth rate has been increasing in countries outside the temperate zone. It is of interest to compare the distribution of income in Latin America with some approximate figures for the world distribution of income levels (see table 3).

The extremely unequal international distribution of income is obvious; 65 per cent of the world population, with a per capita income of less than 300 dollars, has less than 16 per cent of total world income, and the remaining 35 per cent has 84 per cent of the total.

These per capita income figures should be taken merely as an indication of the range of the existing differences, since there is a wide margin of error due to the rough, not to say tentative, methods used in estimating the figures. In many cases it has been found that a more careful estimate, taking account of the real purchasing power of national currencies, and of the output that generally does not find its way to the market, in the countries in course of development, gives dollar incomes higher than those shown in these two tables.

Table 2

LATIN AMERICA: PER CAPITA INCOME LEVEL (1955-59 AVERAGE), AND POPULATION IN 1957

Country	Income level ^{a/} (dollars at 1950 prices)	Percentage of population of region ^{b/}	Percentage of cumulative population
Venezuela	1 000	3.32	3.32
Argentina	550	10.74	14.06
Uruguay	400	1.45	15.51
Cuba	375	3.46	18.97
Parana	350	0.52	19.49
Chile	325	3.85	23.34
Colombia	300	7.41	30.75
Brazil	250	33.12	63.87
Costa Rica	250	0.56	64.43
Mexico	200	17.17	81.60
Dominican Republic	200	1.46	83.06
Peru	175	5.36	88.42
Guatemala	175	1.87	90.29
El Salvador	175	1.27	91.56
Honduras	175	0.96	92.52
Nicaragua	175	0.72	93.24
Ecuador	140	2.12	95.36
Paraguay	100	0.89	96.25
Haiti	80	1.87	98.12
Bolivia	75	1.88	100.00
Latin America	300	100.00	

Source: For basic income data: ECLA, Economic Bulletin for Latin America, Vol. V, Statistical Supplement; for population data; ECLA, Economic Bulletin for Latin America, Vol. VI, Statistical Supplement.

^{a/} Per capita gross domestic product: 1955-59 average in terms of dollars at 1950 prices. Data expressed in terms of current prices were converted into dollars by applying the parity exchange rates for 1950. For most countries the figures given should be regarded as no more than a rough indication.

^{b/} 1957.

Table 3

INTERNATIONAL INCOME DISTRIBUTION, 1957

Per capita income, by countries	Population	Income
	Percentage	
Up to 100	50.1	8.1
101 - 200	7.4	2.9
201 - 300	8.3	5.4
301 - 600	17.6	21.4
601 -1000	7.8	17.1
1 001 and over	8.8	45.1
Total	100.0	100.0

Sources: See table 1.

/(b) Income

(b) Income distribution

In addition to the above note of caution with respect to the average level of income as a comparative indicator of a country's level of living, it should be noted that the picture is incomplete unless the personal, and even regional, distribution of income is also taken into account. Consequently, it may be helpful to indicate, to the extent permitted by the data available, certain aspects of income distribution in the Latin American countries; this will give a clearer idea of what might be called the social well-being situation in the various countries.

The present document, being intended merely for information, cannot include an analysis of the question of the income distribution in relation to economic development. However, it should be emphasized that from this standpoint income should be so distributed and utilized as to ensure the building up of savings to increase productive capacity, and that an extremely unequal distribution, such as that revealed by certain statistical surveys covering a number of Latin American countries, represents a serious obstacle to the development process. Furthermore, it should be added that this situation makes it difficult to establish the climate of social integration which is an essential requirement if the development process is to go forward steadily.

Generally speaking it is found that in the industrial countries with a higher level of income there is a more equitable distribution, both personal and functional, between capital and labour than there is in countries with a low level of income.

(i) Distribution by income brackets. Little information is available on distribution by income brackets in the Latin American countries and it may be summed up briefly.^{2/} A recent estimate shows that in Chile in

^{2/} Statistical estimates of personal income distribution present a number of problems owing to the lack of specific data and also because over-all statistics which might be useful for this purpose are notoriously apt to be lacking in the countries of the region. The sources of the data commented upon in the text are given in table 4.

1954 a group in the highest income brackets, representing less than 3 per cent of all income recipients, received a quarter of the total personal income, whereas at the other end of the scale a group representing 55 per cent received less than 16 per cent of the total. In Mexico it was estimated that in 1957 a group of families in the highest brackets representing less than 5 per cent of all income recipients received over 36 per cent of the total personal income, whereas at the other extreme 56 per cent of families received only 19 per cent of the total. Data for 1950 for El Salvador show that less than 8 per cent of the families received more than half the personal income for the country, whereas 61 per cent received only one-fifth of the total. The Shoup Committee, in its study of the fiscal system of Venezuela, pointed out that "about one-eighth of the income-receivers get one-half of total income. At the other extreme, 45 per cent get about one-tenth of the income." Lastly, a recent study made in Ecuador showed that 78 per cent of the population received less than 55 per cent of the national income, whereas slightly over one per cent accounted for 17 per cent of the total.

Such data as could be compiled on personal income distribution in several Latin American countries are given in table 4, and figures for other countries outside the region have been added as points of reference by which to characterize the phenomenon described. In view of the statistical difficulties referred to, the data relate to different years and to brackets of varying size, depending upon the country, and the reliability of the sources and methods of calculation varies from country to country, so that they are only significant as a means of indicating the size or significance of the differences in personal income distribution from one country to another. The extremes of the income distribution scale in each country are indicated in the table which shows, on the one hand, the share of personal income of the group of persons, families or domestic units which receive the highest income and, on the other hand, the share of total personal income for the low income group.

Table 4

DISTRIBUTION OF PERSONAL INCOME BY INCOME BRACKETS
IN SELECTED COUNTRIES

Country	Year	Upper income brackets		Lower income brackets	
		Percentage of persons or families	Percentage of total personal income	Percentage of persons or families	Percentage of total personal income
Chile	1954	12.5	48.1	54.9	15.7
Ecuador	1950	1.2	17.0	78.1	54.7
El Salvador	1950	7.9	51.3	60.9	19.5
México	1957	4.9	36.6	65.0	25.0
Venezuela	1957	12.0	49.0	45.0	9.0
Ceylon	1950	20.0	50.0	60.0	30.0
India	1949-50	20.0	55.0	60.0	28.0
Puerto Rico	1946-47	10.0	40.8	60.0	23.6
Denmark	1952	10.0	30.7	60.0	29.5
Netherlands	1950	10.0	35.0	60.0	29.5
United Kingdom	1952	10.0	30.0	60.0	34.0
Federal Republic of Germany	1950	10.0	34.0	60.0	29.0
Sweden	1948	10.0	30.3	60.0	29.1
United States	1952	10.0	31.0	60.0	32.0
Italy	1948	10.0	34.1	60.0	31.1

Sources for Latin America:

Chile: Roberto Jadue, Distribución probable del ingreso de las personas en Chile: período 1940-54 (graduation thesis submitted at the School of Economics in Chile). México: Ifigenia M. de Navarrete, La distribución del ingreso y el desarrollo económico de México, (Instituto de Investigaciones Económicas, Escuela Nacional de Economía, México City, 1960). Venezuela: The Shoup Mission, The fiscal system of Venezuela: a report (Baltimore, Johns Hopkins Press, 1959). Ecuador: Reinaldo Torres Caicedo, Los estratos socio-económicos del Ecuador. Un ensayo de cuantificación (Quito, Junta Nacional de Planificación y Coordinación Económica, 1960). Commentary in El Trimestre Económico, Mexico City, October-December 1961. El Salvador: W. J. Feurlein, "Medidas propuestas para fomentar el desarrollo económico de El Salvador", Revista de Economía de El Salvador, Vol. V, Nos. 13-16, January-December 1953.

Sources for countries outside Latin America:

United States and United Kingdom: Harold Lydall and John B. Lansing, "A comparison of the distributions of personal income and wealth in the United States and Great Britain", The American Economic Review, March 1959, No. 1. Italy and Puerto Rico: United Nations, National income and its distribution in under-developed countries (Statistical Papers, Series E, No. 3, Sales No. 1951 XVII.3), chapter IV. Denmark, Netherlands, Federal Republic of Germany and Sweden: United Nations (ECE), Economic Survey of Europe in 1956, (Geneva, 1957), chapter IX. Ceylon and India: Simón Kuznets, "Economic growth and income inequality", The American Economic Review, March 1955, No. 1.

Note: The almost complete dearth of data on personal income distribution in Latin American countries is illustrated by the fact that only five of the twenty countries in the region provide information on the subject: Chile, Mexico, El Salvador, Ecuador and Venezuela. In all these cases the information is based on trial attempts which are more or less private in nature, and consequently it cannot be regarded as representing the official estimates of the countries concerned. Moreover, of the five countries, only Chile and Mexico appear to have followed a fairly strict method and obtained reasonably full information. These two sets of data represent specific studies, whereas those for the other three countries are no more than incomplete estimates based on broader studies. With respect to the countries outside the region, the statistics on income distribution are not generally available, and those that can be studied seem to be subject to rather wide margins of error. However, in the more advanced economies the basic material such calculations may be more accessible than it is in Latin America.

/It thus

It thus appears that in the United Kingdom and the United States, where the distribution pattern is very similar, the highest income bracket, comprising 10 per cent of the units, receives about 30 per cent of the total personal income, whereas the lowest brackets, representing 60 per cent of the units, receive approximately one-third. If other European countries are included, income distribution in the economically developed countries may be described as follows on the basis of the data in table 4. The upper bracket, comprising 10 per cent of the units, receives 30 per cent of the total personal income; the middle bracket, consisting of 30 per cent of the units, receives 40 per cent, and the lower bracket, comprising 60 per cent of the units, receives 30 per cent.

This distribution would be somewhat less uneven if account were taken of the impact of taxation, which would widen the gap between these countries and those of Latin America where taxes are not as heavy (see table 5).

A comparison of this distribution with the scanty data available in the Latin American countries shows that the inequality is greatest in the upper income brackets. It would appear that in the countries under consideration only 10 per cent of the units receive an average of about 45 per cent of the income, whereas in the industrialized countries the 10 per cent comprising the highest income bracket receive less than one-third of the personal income.

Figure I gives distribution curves for the countries considered and shows the more uneven over-all distribution of the low income countries. The diagonal line represents absolutely equal distribution so that the curves indicate distributions which become more uneven the more they deviate from the diagonal line. Compared with other countries, and in relative terms, it might be said that in the Latin American countries considered, the poor are poorer and the rich are very rich indeed. In fact, the outstanding feature emerging from these initial and provisional analyses of income distribution in Latin America is the extremely low level of living of the broad masses of the population, which is hardly shown by the average per capita income figure and - to say nothing of the value of these statistical estimates - the wide gaps which exist between social groups. While these gaps are to be found in other countries, they are much wider in Latin America.

FIGURE I

INCOME DISTRIBUTION IN SELECTED COUNTRIES

(Percentages)

Natural scale

Units of
expenditure

%100

90

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60

70

80

90

100%

Personal income

--- United States (1952)

— United Kingdom (1952)

... México (1957)

--- Chile (1954)

- * - India (1950)

Source: See table 4.

Table 5

INCOME DISTRIBUTION BEFORE AND AFTER TAX, IN SELECTED COUNTRIES

(Percentages)

Country	House holds	Income		Country	House holds	Income	
		A	B			A	B
<u>Venezuela: 1957</u>	45	9	10	<u>United States: 1952</u>	50	23	24
	43	42	43		40	46	48
	<u>12</u>	<u>49</u>	<u>47</u>		<u>10</u>	<u>31</u>	<u>28</u>
	100	100	100		100	100	100
<u>Denmark: 1952</u>	50	21	23	<u>Netherlands: 1950</u>	60	29	32
	40	48	50		30	36	38
	<u>10</u>	<u>31</u>	<u>27</u>		<u>10</u>	<u>35</u>	<u>30</u>
	100	100	100		100	100	100
<u>United Kingdom: 1952</u>	50	25	26	<u>Sweden: 1948</u>	50	20	22
	46	45	48		40	50	51
	<u>10</u>	<u>30</u>	<u>26</u>		<u>10</u>	<u>30</u>	<u>27</u>
	100	100	100		100	100	100

Sources: For United States and United Kingdom: H. Lydall and J.B. Lansing, "Distribution of Personal Income and Wealth", American Economic Review, March 1959. For Venezuela: The Fiscal System of Venezuela. A report, Johns Hopkins Press, Baltimore. For the remaining countries: United Nations Economic Commission for Europe, Economic Survey of Europe, 1956, Geneva.

A = Before tax.
 B = After tax.

(II) Regional

(ii) Regional distribution. It is common in all countries for average income levels to be higher in cities than in rural areas or for some regions in a country to develop more rapidly than others, thus creating differences in income levels. These differences are much sharper in the Latin American countries. In Mexico, for instance, it is estimated that the average family income in Mexico City is nearly three times as high as it is in poorer rural areas such as Oaxaca in the southern part of the country.^{3/} According to the Shoup report,^{4/} the gap between urban and rural income in Venezuela is even wider. Average income in Caracas is estimated to be ten times as high as in the rural areas. By way of comparison, it might be noted that in the United Kingdom the per capita income of families living in cities in 1953-54 was estimated to be only 5 per cent higher than per capita income in non-urban areas.^{5/}

It is a fact in most Latin American countries that there are both relatively developed regions and poor, economically backward, areas. The contrast is so marked that it is sometimes hard to realize that the areas belong to the same country. For instance, estimates made in Brazil show that seven central and southern states, which together account for only 30 per cent of the total population, receive about 80 per cent of the national income, and that the state of Guanabara (formerly the city of Rio de Janeiro) has a per capita income nearly fourteen times higher than the state of Piauí, which has the lowest per capita income level in the country.^{6/} In Peru, per capita income in the coastal area is six times as high as in the backwoods.^{7/} In this connexion, the United States offers an interesting point of comparison.

3/ Secretaría de Industria y Comercio, Departamento de Muestreo, Ingresos y egresos de las familias en la república mexicana, July 1958, Mexico City 1960.

4/ Carl S. Shoup, Informe sobre el sistema fiscal de Venezuela, Ministerio de Hacienda, 2 volumes, Caracas, 1960.

5/ United Kingdom, Ministry of Labour, Report of an Enquiry into Household Expenditure, London, 1953-54.

6/ G.F. Loeb, Industrialization and Balanced Growth, Groningen, Netherlands, 1957, p. 75, table 10.

7/ Banco Central de Reserva del Perú, Actividades productivas del Perú Analisis y perspectivas, Lima, 1961.

There, the ratio between the most developed and least developed regions is 2 to 1. From a per capita income standpoint, the widest gap between states is only 3 to 1.^{8/}

(iii) Functional distribution of income. Complex economic and other phenomena which affect the personal and regional distribution of income already studied in earlier sections also influence the distribution of income among the various factors of the productive process. The data contained in table 6 show the share of wages and salaries in the national income in some Latin American countries and in others outside the region.^{9/} It is seen that wages and salaries make up a higher share of the national income in the industrialized countries than in those of Latin America or in other countries where the level of income is low.

There are, moreover, marked differences in wages and salaries, depending upon the branch of activity. In Chile, ^{10/} for example, an industrial worker in 1959 earned five times more than a rural worker, while in Venezuela^{11/} it is estimated that skilled workers earn three to four times as much as unskilled workers in the same enterprise.

(c) Other indices of economic development and social welfare

Table 7 contains some indicators of the social-economic level of the Latin American countries. Some of these indicators - e.g. the

^{8/} United States Department of Commerce, Statistical Abstract of the United States, 1960, Washington, D.C., 1960.

^{9/} Because of a lack of uniformity in the concepts and methods of making estimates, statistics on the functional distribution of income are not strictly comparable. An attempt has been made to adjust the figures in table 6 to the national accounting concepts proposed by the United Nations. However, they should be viewed as a mere indication of the general extent of the differences in distribution between groups of countries.

^{10/} ILO, Year Book of Labour Statistics, 1960, Geneva, 1961.

^{11/} Shoup Committee, op. cit.

Table 6

FUNCTIONAL DISTRIBUTION OF NATIONAL INCOME IN SELECTED
 COUNTRIES, 1957

(Percentages)

Country	Earnings <u>a/</u>	Other types of income <u>b/</u>
Brazil	48 <u>c/</u>	52
Colombia	36	64
Ecuador	51	49
Honduras	49	51
Perú	42	58
Australia	63	37
Belgium	56	44
Canada	69	31
France	59	41
Norway	59	41
United Kingdom	73	27
United States	70	30

Source: United Nations Statistical Office, Yearbook of National Accounts
 Statistics, 1960.

a/ Remuneration of employees and workers: salaries, wages and supplementary earnings in money or in kind.

b/ Including rents and interest, dividends, income of unincorporated companies, savings of corporations, direct taxation on corporations, government income and interest on the public debt and on the consumers' debt.

c/ Excluding salaries and wages in the agricultural sector.

/death rate

death rate, calorie consumption and the coefficient of literacy -- to some extent supplement the general analysis made in earlier sections on the basis of the average per capita income and makes it possible to define some features of the specific position of the countries concerned. While there is a certain measure of correlation between the indicators and the level of income, it is not always absolutely accurate.

2. Recent growth experience

(a) Rates of growth of the total and of the per capita product

Since the end of the Second World War, the gross domestic product has grown at an approximate annual rate of 5 per cent. However, between one Latin American country and another rates of growth differ widely (see table 8). At one extreme, Venezuela and four of the smallest countries in the region have registered annual rates of growth exceeding 6 per cent; in Argentina, Bolivia, Haiti and Paraguay, on the other hand, output is estimated to have risen by less than 3 per cent during the same period. Brazil and Mexico, two of the largest and most densely populated countries in Latin America, showed rates that were relatively high, although lower than those of the group of countries first mentioned.

The rate of growth of total output in Latin America during the post-war period was much the same as in some of the industrialized countries of Western Europe. The aggregate annual growth rate registered by the group comprising the European Organization for Economic Co-operation and Development (OECD) from 1948 to 1959 was 5 per cent, i.e., slightly higher than the rate of 4.6 per cent estimated for Latin America over the same period. In Canada and the United States total output increased at annual rates of 4.6 per cent and 3.8 per cent, respectively. In contrast, the growth rates shown by the countries of Eastern Europe were higher than those of the Latin American countries -- they are estimated to have ranged from 7 to 11 per cent for the material product.^{12/} Again, Latin America's

^{12/} Preliminary data prepared by the Economic Commission for Europe. The sectors of production in Latin America which correspond approximately to the concept of the material product also show growth rates lower than those registered in the countries of Eastern Europe.

Table 7

LATIN AMERICAN RELATION BETWEEN PER CAPITA PRODUCT LEVELS AND OTHER
 INDICATORS OF ECONOMIC AND SOCIAL WELFARE

Country	Per capita			Infant mortality rate in recent years (per 1 000 births)	Daily per capita consumption of calories in recent years	Percentage of population aged 15 years and over taught to read and write, 1950
	Gross domestic product, 1957-59 average (dollars at 1950 prices)	Non-industrial electricity consumption, 1958 (kw)	Fibre consumption, 1957 (kilogrammes)			
	(1)	(2)	(3)	(4)	(5)	(6)
Venezuela	1 000	186	4.3	59	2 300	52
Argentina	550	167	8.9	61	3 040	86
Uruguay	400	205	5.4	73	3 110	85
Cuba	375	183	6.8	-	2 730	78
Panama	350	117	3.0	60	-	70
Chile	325	198	4.1	120	2 450	80
Colombia	300	98	3.9	97	2 170	62
Brazil	250	125	4.5	94 ^{a/}	2 500	49
Costa Rica	250	24	3.7	89	1 966	79
Mexico	200	115	4.1	80	2 560	57
Dominican Republic	200	-	1.5	77	-	43
Nicaragua	175	28	2.3	64	-	38
Peru	175	36	2.7	85	-	47
Guatemala	175	28	2.1	90	-	29
El Salvador	175	69	2.5	-	-	39
Honduras	175	6	2.3	54	2 260	35
Ecuador	140	40	1.7	106	2 230	56
Paraguay	100	23	1.0	54	2 570	66
Haiti	80	20	1.5	-	-	11
Bolivia	75	32	2.1	91	-	32

Sources: Column (1): see table 2;

Column (2): ECLA, Estado actual y evolución reciente de la energía eléctrica en América Latina, Anexos estadísticos (ST/ECLA/CONF.7/L.1.01/Add.1);

Column (3): FAO, Per capita fiber consumption levels, 1948-58;

Columns (4) and (6): United Nations, Demographic Yearbook, 1960, New York, 1961;

Column (5), FAO, The state of food and agriculture, 1961, Rome, 1961.

^{a/} Relates to Rio de Janeiro.

Table 8

LATIN AMERICA: GROWTH OF GROSS DOMESTIC PRODUCT (TOTAL AND PER CAPITA)

(Cumulative annual percentages)

Country	1945-1959			1954-1959		
	Gross domestic product	Population	Per capita Gross domestic product	Gross domestic product	Population	Per capita Gross domestic product
Venezuela	8.3	3.0	5.1	8.0	3.0	4.8
Costa Rica	6.9	3.5	3.3	4.2	4.3	-0.1
Nicaragua	6.8	3.1	3.5	3.5	3.4	0.1
Dominican Republic	6.8	3.1	3.6	5.2	3.5	1.7
Ecuador	6.1	2.9	3.1	3.6	3.2	0.4
Mexico	5.9	2.9	2.9	5.6	3.0	2.5
El Salvador	5.8	2.7	3.1	3.8	3.5	0.3
Brazil	5.4	2.4	3.4	6.8	2.4	4.3
Peru	4.3	2.2	2.0	2.7	2.7	-0.1
Colombia	4.2	2.6	2.1	4.0	2.8	1.1
Honduras	4.1	2.9	1.1	5.5	3.3	2.1
Panama	4.0	2.7	1.3	5.8	2.9	2.8
Cuba	3.5	2.2	1.3	3.1	2.1	1.0
Uruguay	3.4	1.4	2.0	0.6	1.1	-0.6
Guatemala	3.3	2.9	0.4	8.1	2.9	5.0
Chile	3.1	2.2	0.9	2.7	2.5	0.2
Argentina	2.6	2.1	0.5	1.4	1.9	-0.5
Paraguay	2.6	2.4	0.2	2.9	2.4	0.4
Haiti	1.8	1.5	0.3	1.5	1.7	-0.2
Bolivia	1.1	1.7	-0.7	1.2	2.2	-1.0
<u>Latin America</u>	<u>4.9</u>	<u>2.5</u>	<u>2.4</u>	<u>4.7</u>	<u>2.6</u>	<u>2.1</u>

Source: ECLA, on the basis of national statistics.

/rate of

rate of growth compares unfavourably with that of certain countries in other regions in the process of development.

If per capita growth rates are taken into consideration, not only does the rate of development of the Latin American countries look much less satisfactory, but striking differences in intensity between their growth and that of other parts of the world become apparent. The reason is that the annual rate of population growth in Latin America has been 2.5 per cent during the post-war period - higher than that of any other region in the world, and of course far exceeding that of the industrialized countries. As the rate of growth of the per capita product has been only 2.4 per cent in Latin America during the last fifteen years, the implication is that during that period per capita income has increased by only 87 dollars (at 1950 prices). In some of the countries of the region, per capita income levels have scarcely improved at all, and have even declined during the last few years (see table 8). In the region as a whole, the total and the per capita product have increased at average annual rates of 4.9 and 2.4 per cent respectively, since the end of the Second World War; but their growth has not been uniform. There have been booms, slacker periods and even slumps, as can be seen from table 8 and figure II.

Broadly speaking, from the end of the Second World War until 1951 the rate of growth of total output increased, mainly owing to the direct and indirect influence of world demand. During that period, Latin America's traditional export commodities reaped the benefit of a steady demand generated by the requirements deriving first from European reconstruction and subsequently from strategic stock-piling of raw materials during the hostilities in Korea. From about 1954 onwards, however, world demand for a number of Latin America's staple export items showed signs of contracting, and as a result, in many of the countries of the region the capacity to import deteriorated. In these unfavourable economic circumstances, efforts were made to consolidate and raise the level of internal economic activity. In some countries inflationary

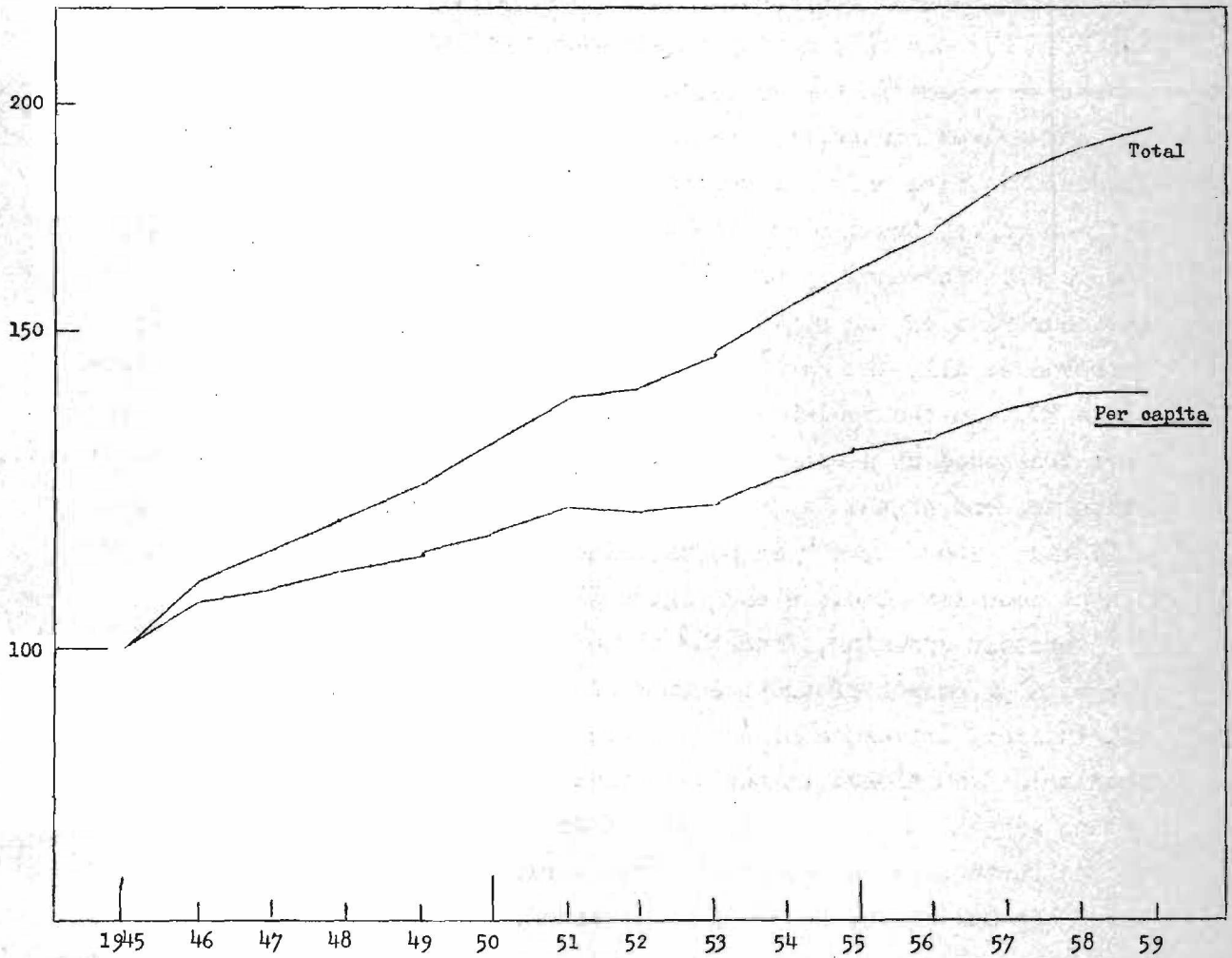
/Figure II

Figure II

LATIN AMERICA: EVOLUTION OF THE GROSS DOMESTIC PRODUCT, 1945-59

(Indices: 1945 = 100)

Semilogarithmic Scale



pressures were intensified, while in others, where measures to stabilize the economy were adopted, it was found difficult to maintain the process of growth and even the level of per capita income. The effects of the weakening of external purchasing power have been so drastic that in the last few years the rate of growth of the Latin American product as a whole has barely outstripped that of the population.

(b) Components of growth

To judge by per capita income indices for the various countries, development in the region has been very uneven (see table 8). In some countries (Brazil, Costa Rica, Ecuador, Mexico, Nicaragua and Venezuela), growth has been much more rapid than the average for the region as a whole; in another group (Argentina, Bolivia, Chile and Uruguay) growth has been much slower, and in recent years per capita income has been practically at a standstill.

Generally speaking, relatively high rates of growth have been attained by those countries where there has been an expansion of internal and/or of external demand, and where idle production capacity has been successfully utilized or existing production capacity expanded in the way best calculated to meet that expansion.

A study of the development of the components of demand in relation to those of supply shows that the highest rates of growth are found in those countries where real exports and investment are established on relatively sound bases and where, on the supply side, agricultural and/or industrial production constitute the fountainhead of progress. The stimulus provided by the external sector has operated in some countries through traditional commodities, such as petroleum, coffee and bananas; and in others, through new lines of agricultural production, as in the case of Mexico. In these countries, too, the more rapid increase in the purchasing power of exports has facilitated the process of readjustment of supply to changes in the volume and composition of demand. To some extent, Brazil affords an example of a country which, despite an unfavourable trend in the external sector, has maintained its growth through internal development.

On the other hand, in countries where the rate of growth is relatively slow, exports have remained stationary and internal demand has been generated by consumption rather than by investment. On the supply side, while agricultural production has lagged behind, the output of the industrial sector has increased. Lastly, the services sector has expanded more rapidly than total supply.

The results of the joint action of these forces are reflected in the post-war growth rate of the product, as can be seen in figure III, which gives gross domestic product indices for nine Latin American countries.

Thus, with a few exceptions, the growth experience of the Latin American countries in the last decade suggests that for reasons associated with stagnating external demand or with supply rigidities at home, or with both, the traditional export sector can no longer be relied upon as in the past to provide the sole dynamic element for economic growth. The annual growth rate of per capita output (2.4 per cent) is clearly below the rate required for a rapid increase in economic and social levels. Consequently, new sources of economic growth must be energetically sought in a full measure of industrialization and in the diversification of external trade, and these aims in turn imply the need for significant changes both in the economic structure of the Latin American countries and in certain economic institutions.

3. The structure of production and employment and productivity

(a) Production

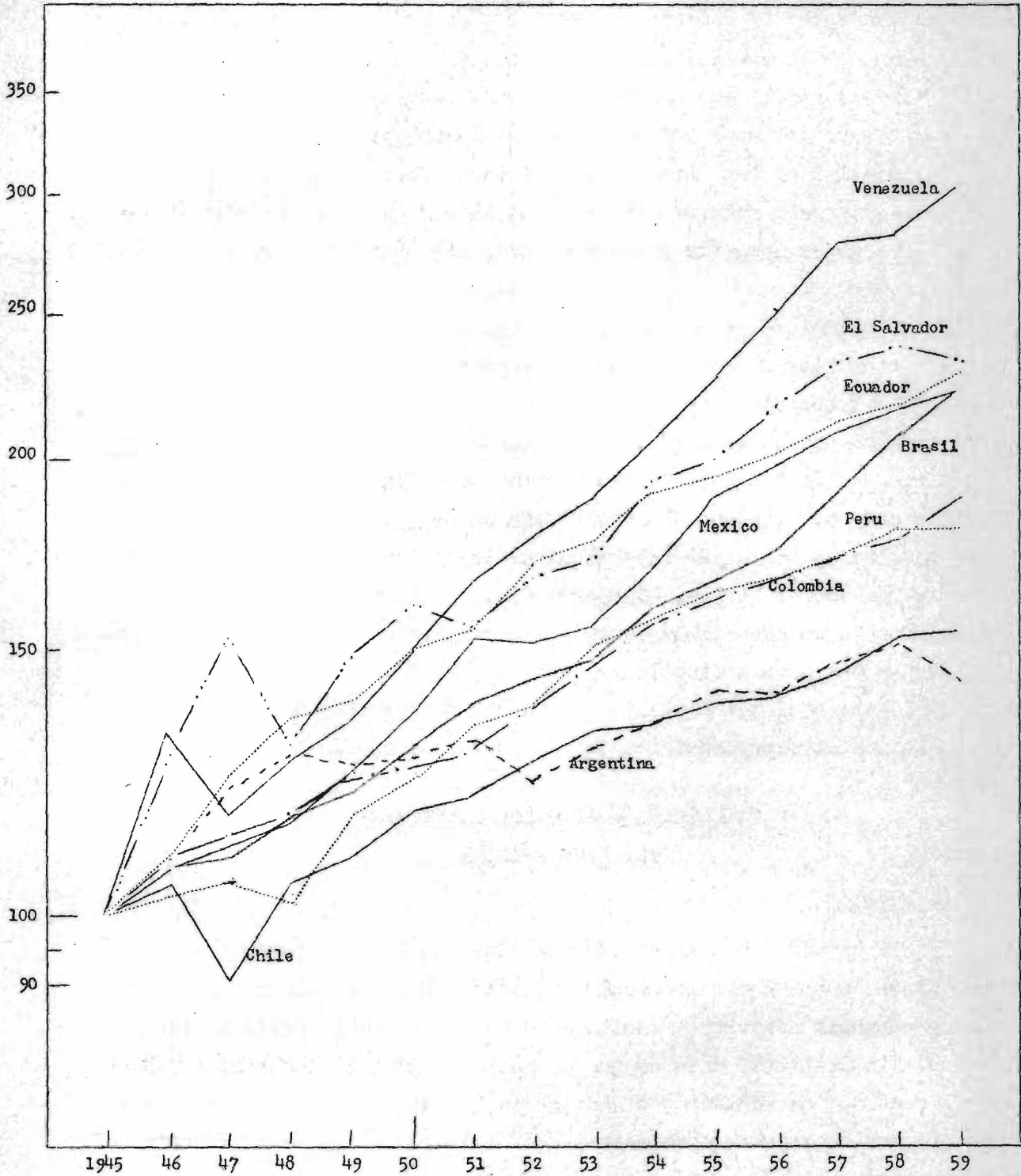
It can be seen from figure IV that despite the changes which have taken place in the Latin American countries since the Second World War, primary economic activity - constituted by the agricultural and mining sectors - is still the main source of output, since it contributes about 28 per cent to the formation of the gross regional product. Nevertheless, this proportion is not representative of most of the individual Latin

Figure III

LATIN AMERICA: EVOLUTION OF GROSS DOMESTIC PRODUCT, BY COUNTRIES, 1945-59

(Indices: 1945=100)

Semilogarithmic scale



Source: ECLA, on the basis of national statistics.

American countries. Excluding Argentina, Brazil and Mexico, where the share of the primary sectors is below the regional average, in the majority of the remaining countries the proportion in question is usually higher. It is enlightening to note that in Canada the contribution of primary activities to the gross product (barely 11 per cent) is much smaller than in Latin America, although Canada is among the leading exporters of agricultural and mining commodities. On the other hand, the average percentage for Latin America is closer to those registered for the countries of Southern Europe (see table 9). In Italy, for example, the corresponding proportion is 20 per cent, while in Greece it rises to as much as 32 per cent.

In Latin America the industrial sector generates 25 per cent of the product, i.e., a smaller proportion than in the more industrialized countries of North America or Western Europe. Within the average for Latin America as a whole, the contribution of the industrial sector varies to a marked extent, fluctuating between 17 and 26 per cent for the countries included in the table. In contrast, in the United States and Canada the corresponding proportions are 36 and 33 per cent, respectively.^{13/}

The share in the generation of the product corresponding to those activities usually included under the generic term "services" is relatively high in Latin America (see table 9), and is close to that registered in countries with high income levels. This characteristic of the region might be interpreted as an exception to the generally-accepted hypothesis that there is a positive correlation between the contribution of services to the domestic product and real income levels. But in such international comparisons allowance must be made for the

^{13/} These coefficients are of course influenced by the relative prices prevailing for each sector of activity in each of the countries concerned. Obviously, however, an adjustment to eliminate differences in relative prices would make no difference to the general conclusions reached in the present report.

Table 9

COMPOSITION OF GROSS DOMESTIC PRODUCT, BY MAJOR ECONOMIC
 SECTORS, IN SELECTED COUNTRIES, 1959

(Percentage of gross domestic product at factor cost)

Country	Primary production sector <u>a/</u>	Industrial sector <u>b/</u>	Services <u>c/</u>
<u>Latin America</u>	<u>28</u>	<u>25</u>	<u>47</u>
Argentina	24	25	51
Brazil <u>d/</u>	27	25 <u>g/</u>	48
Chile <u>d/</u>	18	26	56
Colombia	40	21	39
El Salvador <u>e/</u>	37	22	41
Mexico <u>e/</u>	23	25	52
Peru	37	17	46
Venezuela <u>f/</u>	37 <u>h/</u>	18	45
<u>Other countries</u>			
Canada	11	33	56
Greece	32	28	40
Italy	20	39	41
United States	5	36	59

Sources: ECLA, Economic Bulletin for Latin America Vol. VI, Statistical Supplement;
 European Organization for Economic Co-operation and Development (OECD), General
 Statistics, July 1961.

a/ Including agriculture and mining.

b/ Including manufacturing industry and construction.

c/ Including transport, communications, government services, finance and trade, and other services.

d/ Net domestic product at factor cost.

e/ Gross domestic product at 1950 market prices.

f/ Gross domestic product at 1957 market prices.

g/ Including mining and electricity.

h/ Including the petroleum sector.

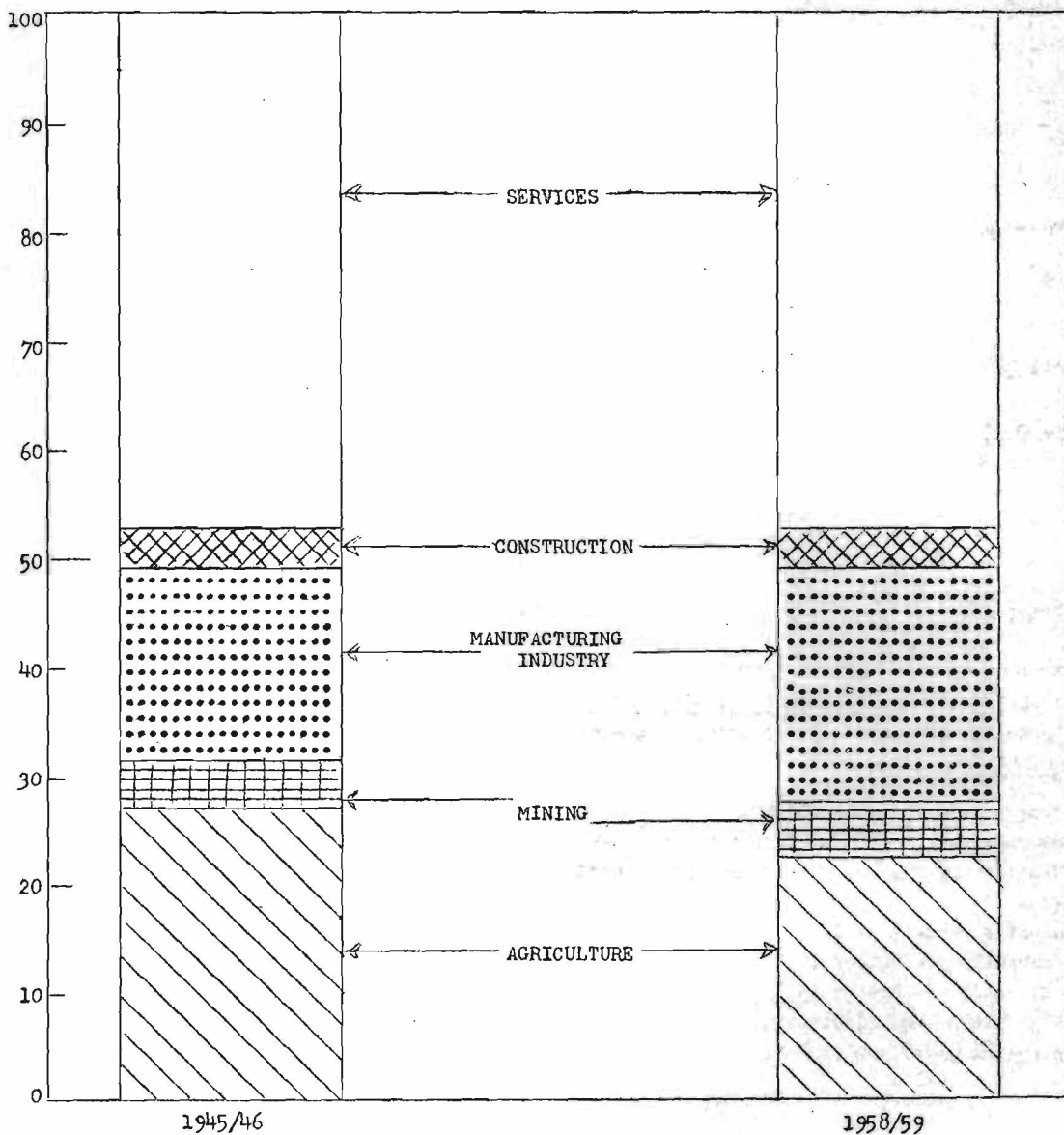
Figure IV

LATIN AMERICA: STRUCTURE OF GROSS DOMESTIC PRODUCT BY SECTORS OF ECONOMIC ACTIVITY

(At 1950 prices)

(Percentages)

Natural scale



influence of a variety of factors, some of which are peculiar to countries in the process of development. In the first place, there will probably have been a tendency to overestimate the value of services, owing to the well-known scantiness of statistical data in the Latin American countries. Secondly, the following factors might be pointed out as conducive to exaggeration of the services sector's share in the product: (i) exports of primary commodities entail a relatively substantial volume of transport, bank and marketing services;^{14/} (ii) agricultural production, which is the region's most important activity, seems to involve relatively higher marketing costs than in other countries; (iii) the educational system, of a predominantly traditional and humanistic type, trains professional level workers who have little opportunity of obtaining employment in activities other than services; (iv) there is a high proportion of workers on own account who (in default of alternative employment opportunities in other sectors of the economy) offer a wide range of services that in more developed countries are either non-existent or are mass-provided by firms established for the purpose; and, lastly, (v) the relative importance of services such as domestic help is considerable, in consequence of the abundance of unskilled labour.

(b) Employment and productivity

The structure of employment in Latin America shows, perhaps better than that of production, the characteristics common to countries with low income levels. As can be seen from table 10, in 1950 the agricultural sector provided employment for more than half the region's economically active population,^{15/} whereas manufacturing and construction together absorbed only 16 per cent. The striking preponderance of employment

^{14/} In 1959 commercial and financial services contributed 19 per cent of the gross product of the region as a whole. This proportion is the same as that registered in Canada, where per capita income is approximately five times higher than the average for Latin America, and which, moreover, is one of the countries carrying on most trade in the world.

^{15/} No data on the sectoral distribution of employment in the Latin American countries are available for recent years. However, approximate estimates suggest that the current structure of employment is as follows: agriculture, 50 per cent; mining, 1 per cent; construction, 4 per cent; manufacturing industry, 14 per cent; services, 31 per cent.

in the agricultural sector is enhanced by comparison with the distribution of the active population in countries like Australia, Canada and Denmark, where the role of agricultural production is of primary importance in the economy as a whole; the coefficient of employment in agriculture in these countries does not exceed 30 per cent, in contrast with the 50 per cent noted for Latin America.

A comparison of the inter-sectoral structure of production and employment throws into relief the basic disequilibria in the Latin American economies. Table 11 presents estimates of the product per employed person in each sector of economic activity in about 1950, for the region as whole.

The agricultural sector, which employs more than half the active population contributes only one-fourth of the gross regional product. Consequently, its productivity, expressed in terms of the relation between the product generated in the sector and employment in agriculture, is extremely low, and represents not more than 46 per cent of average productivity for the economy as a whole. The disparities resulting from comparison with other sectors are more marked. Thus, the output of the agricultural sector is one-third of that obtained from manufacturing activities, one-tenth of mining output (including petroleum) and two-fifths of the output of construction. Comparison with the United States shows that there too the productivity of the agricultural sector is very low in relation to that of other activities. But the peculiar feature of the Latin American economies is that sectoral differences in productivity are much more marked than in countries with higher income levels; in the latter, moreover, as is well exemplified in the United States, the lower degree of productivity affects sectors whose share both in the product and in the labour force is much less significant than in Latin America. To this must be added the striking disparity between absolute levels revealed by a comparison of the statistics given in table 11. This structural disequilibrium is clearly observable in figure V, which indicates sectoral productivity differences in relation to the average

Table 10

STRUCTURE OF EMPLOYMENT IN LATIN AMERICA AND SELECTED NON-LATIN AMERICAN
 COUNTRIES, 1950 a/

(Percentages)

Sector	Latin America	Austra- lia	Bel- gium	Can- da	Den- mark	United States	Nor- way	United king- dom	Federal Republic of Germany
Agriculture	53.0	15.4	12.1	19.0	23.6	12.2	25.8	4.9	23.2
Mining	1.0	1.7	5.5	2.0	...	1.6	0.7	3.8	...
Manufacturing industry	13.0	25.3	37.7	25.7	28.8 ^{b/}	26.8	25.7	37.4	41.9 ^{c/}
Construction	3.0	7.2	5.6	6.6	6.9	6.2	9.2	6.2	...
Services	30.0	50.4	39.1	46.7	40.7	53.2	38.6	47.7	34.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: ECLA, Estudio sobre la mano de obra en América Latina, presented at the seventh session of the Commission (Conference Room Paper N° 2), May 1957; International Labour Organisation (ILO), Yearbook of labour statistics, 1954, Geneva, 1954.

a/ For some countries the census year nearest to 1950 was taken.

b/ Including mining.

c/ Including mining, construction and public utilities (electricity, gas and water).

Table 11

LATIN AMERICA AND UNITED STATES: STRUCTURE OF EMPLOYMENT,
 PRODUCT AND PRODUCTIVITY, BY SECTORS, 1950

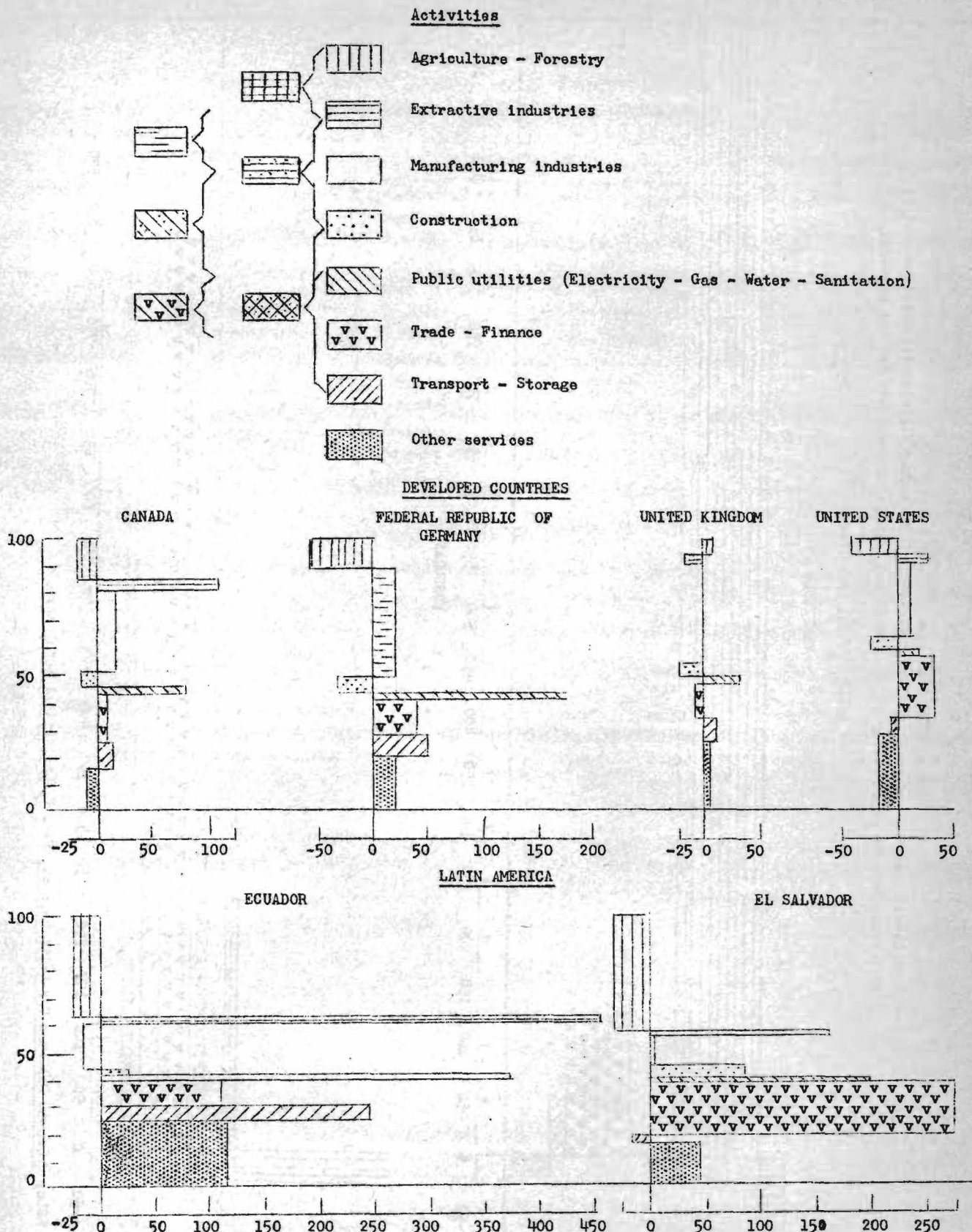
Sectors	Latin America				United States			
	Struc- ture of em- ploy- ment	Struc- ture of gross domestic product	Product per ac- tive person (dollars)	Produc- tivity of each sector in rela- tion to total produc- tivity (total produc- tivity = 100)	Struc- ture of em- ploy- ment	Struc- ture of gross domestic product	Product per ac- tive person (dollars)	Produc- tivity of each sector in rela- tion to total produc- tivity (total produc- tivity = 100)
	Percentages				Percentages			
Agriculture	53.0	24.0	356	46	12.2	6.4	2 274	52
Mining	1.0	4.0	3 198	409	1.6	1.9	5 159	115
Manufacturing industry	13.0	19.0	1 167	149	26.8	28.4	4 607	106
Construction	3.0	4.0	884	113	6.2	4.4	3 062	70
Services	30.0	49.0	1 276	163	53.2	58.9	4 818	111
Gross domestic product	100.0	100.0	781	100	100.0	100.0	4 347	100

Sources: ECLA, on the basis of national statistics; International Labour Organisation (ILO), Yearbook of labour statistics 1954, Geneva, 1954; United Nations Statistical Office, Yearbook of National Accounts Statistics 1957, New York, 1958.

Figure V

RELATIVE PRODUCTIVITY BY SECTOR, ABOUT 1950

(Vertical axes: percentage of gross product generated in the sector) (Horizontal axis: percentage difference between productivity in the sector and average productivity for all sectors)



Sources: Developed countries: United Nations Statistical Office, Yearbook of National Accounts Statistics and Demographic Yearbook
 Latin America: ECLA, Economic Bulletin for Latin America, Vol. V Statistical Supplement, Nov. 1960.

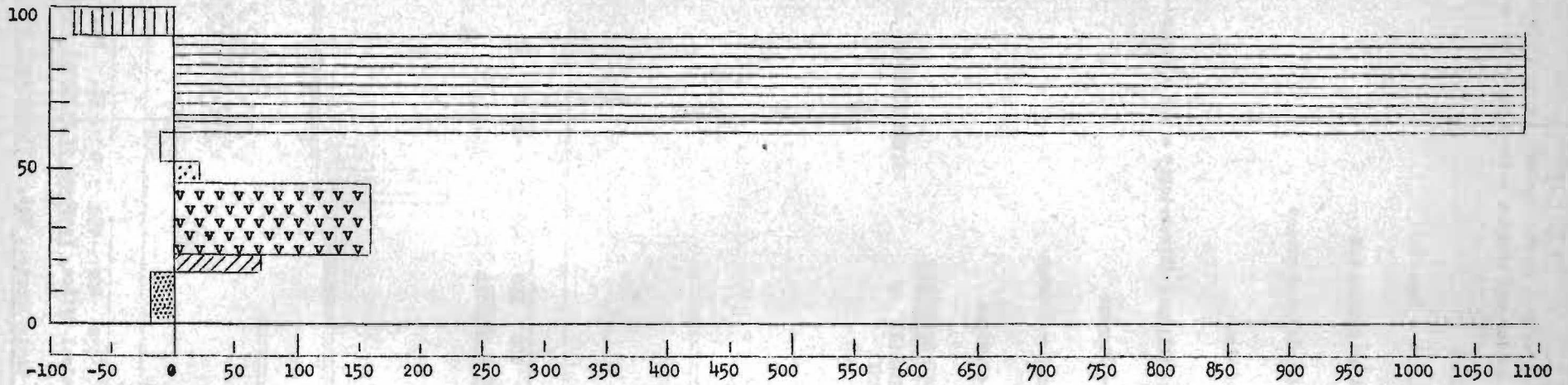
Figure V (continued)

RELATIVE PRODUCTIVITY BY SECTORS, ABOUT 1950

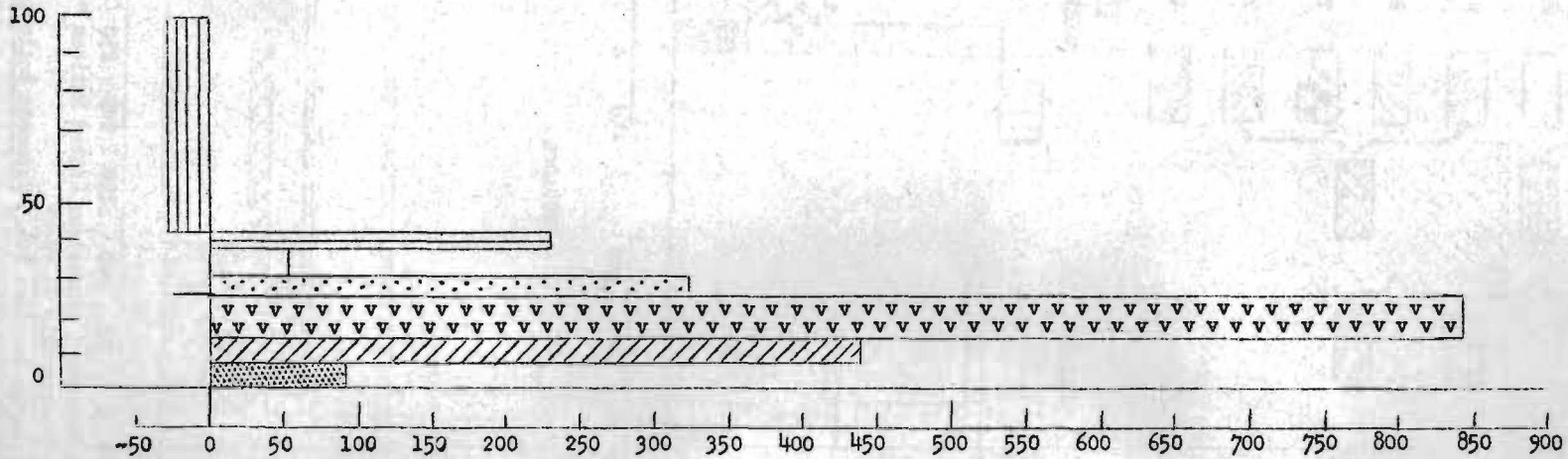
(Vertical axes: percentage of gross product generated in the sector) (Horizontal axis: percentage difference between productivity in the sector and average productivity for all sectors)

LATIN AMERICA (continued)

VENEZUELA



HONDURAS



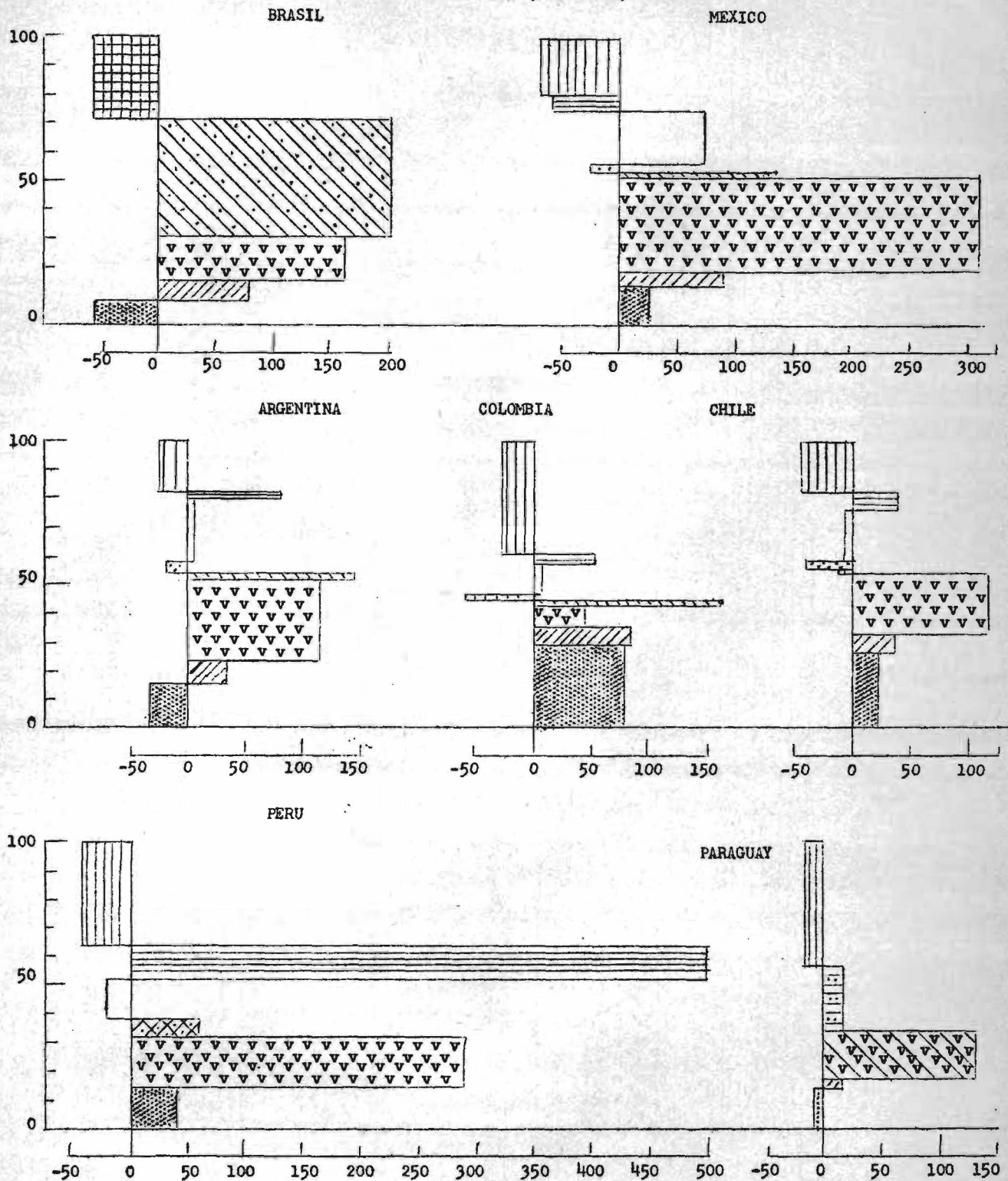
Sources: ECLA, Economic Bulletin for Latin America, Vol. V, Statistical Supplement.

Figure V (continued)

RELATIVE PRODUCTIVITY BY SECTORS, ABOUT 1950

(Vertical axes: percentage of gross product generated in the sector) (Horizontal axis: percentage difference between productivity in the sector and average productivity for all sectors)

LATIN AMERICA (continued)



Source: ECLA, Economic Bulletin for Latin America, Vol. V, Statistical Supplement.

for the economy as a whole, as well as the share of each sector of activity in the formation of the total product in a group of Latin American countries and in four non-Latin American countries with high income levels. Figure V shows the difference in productivity between the Latin American and the industrialized countries by economic sectors, and puts, as it were, in a nutshell, elements of disequilibrium, sectoral rigidities and obstacles to the mobility of the factors of production which is characteristic of economies in the early stages of development or passing through a phase of economic stagnation.

In particular, sectoral differences in productivity are the most striking in the Latin American countries because of the high level reached by the extractive industries producing for export, as in the case of petroleum. The agricultural export sector is also characterized by relatively high productivity, which is no longer the case when agriculture as a whole is considered, since the levels registered for non-export activities are minimal.

4. The geographical orientation of Latin America's external trade

During the last two decades the structure of Latin America's export market has undergone significant changes. The United States took an increasing share of Latin American exports during this period, and by 1959 had become the dominant market, with 45 per cent of the total (see table 12). Exports to the United Kingdom declined substantially between 1938 and 1959 as a percentage of the total, while the share going to the rest of Western Europe remained virtually constant. This orientation of the region's exports towards the United States means that any fluctuations in economic activity in the United States have an undue influence on the Latin American economies. Intra-regional trade has increased relatively little. In the early post-war years, trade among the various Latin American countries increased, owing to the dislocations in world markets in the aftermath of the Second World War, but since that time the total value of intra-regional trade has declined.

Table 12

CHANGES IN THE MARKETS OF DESTINATION OF LATIN AMERICAN EXPORTS,
 1938, 1948 AND 1959

(Percentages)

Market of destination (country or region)	1938	1948	1959
United States	30.1	37.2	44.8
Canada	1.1	1.9	1.6
Western Europe (excluding the United Kingdom)	30.1	35.3	30.6
United Kingdom	17.3	13.1	8.9
Japan	1.4	0.9	3.1
USSR and Eastern Europe	2.5	1.4	1.8
Others	17.5	10.2	9.2
Total	100.0	100.0	100.0
Inter-Latin American trade (as a percentage of total trade)	6.1	9.2	8.4

Source: United Nations Statistical Office, Yearbook of International Trade Statistics, Vol. 1.

a/ F.o.b. value, expressed in terms of dollars.

The weak economic ties between the Latin American countries is another economic characteristic of the region. In 1959 more than half of the trade of Western Europe and almost a third of that of the European Economic Community (EEC) flowed among the countries which make up those two regions, and the proportion of intra-regional trade among the Eastern European countries is even higher (see table 13). In contrast to this, intra-regional trade in Latin America in that year amounted to only about 8 per cent of the regional total, a figure which was even lower than that recorded the same year in Africa, where per capita income levels are considerably lower than those in Latin America. This is an indication of the economic isolation prevailing among the Latin American countries, but also of the enormous potentialities for growth of intra-regional trade, which could in the final analysis help to increase the general rate of economic development in Latin America.

II. OBSTACLES TO ECONOMIC DEVELOPMENT

The process of economic development, by its very nature, implies a change in the traditional system of economic organization, accompanied by an improvement in the quality of the productive factors which are available to the economy. For most under-developed countries, and in particular for those in which an immediate improvement in the levels of living of the people is desired, the changes required represent a sharp break with the past. Not only must productive factors be improved in quality and redistributed among the various sectors of economic activity to conform more closely with changed patterns of foreign and domestic demand, but these adjustments must be made relatively quickly. Yet capital cannot be transformed or put into place overnight; as a general rule the average level of education and training can be raised only over relatively long periods of time; and institutions cannot readily be altered to conform more closely with the requirements of rapid economic advance. Clearly there are numerous physical obstacles in the way of a rapid and smooth process of adjustment, and their magnitude will vary

Table 13

VALUE^{a/} OF INTRA-REGIONAL TRADE, 1959
(Percentage of total trade)

Region	Percentage
Latin America	8.4
Western Europe	54.1
European Economic Community	32.4
USSR and Eastern Europe	61.1
Asia (Sterling area)	22.3
Africa	8.8

Source: United Nations Statistical Office, Yearbook of International Trade Statistics, 1959, Vol. I.

^{a/} F.o.b. value, expressed in terms of dollars.

/from country

from country to country. To the extent that the pricing system operates reasonably effectively in its function as an allocator of resources, the process of adjustment is facilitated. But it is one of the common characteristics of under-developed economies that the pricing process does not work effectively, at least not in all economic sectors.

The following paragraphs review in broad terms a number of the most crucial economic problem areas for the Latin American economies.

1. Role of investment and the formation of productive capacity

No country can attain a satisfactory and sustained rate of economic growth unless it increases its productive capacity, and this in turn depends on the proportion of the national product made available annually for replacement and the purchase of new plant and machinery, for transport facilities, and for the construction of the buildings and public works in general that go to make up a country's basic social capital. The greater the total savings that can be transformed into investments of this type, the greater the country's ability to alter its productive structure in the face of the changes in the pattern of domestic and foreign demand that result from the development process. Moreover, the annual proportion of such investment in relation to the national product is to some extent an index of the rate at which technological progress is being introduced into the economic system. In this respect progress is the result of better training of the human element and a higher level of capital endowment.

Consequently, it is apposite to refer to some comparative indicator that give an idea of the situation in Latin America in this respect between Electricity generating capacity, for example, range in Latin America between 12 and 142 watts per capita, with an unweighted average of 63, compared to 920 watts per capita in the United States. Latin American countries have between 14 and 164 kilometres of improved roads and railways per 10,000 hectares of arable land, with an unweighted average of 56, compared with 207 kilometres in the United States.^{16/} With respect to investment in human capital, which can be assessed through the educational levels, the gap is just as wide (see table 14).

16/ International Bank for Reconstruction and Development, Comparative data on Latin American countries (Washington, 1960).

Table 14

LATIN AMERICA: INDICATORS OF THE AVAILABILITY OF BASIC ECONOMIC AND SOCIAL CAPITAL

Country	Improved highways and railways (kilometres per 10 000 hectares of arable land) ^{a/} 1954 or 1955	Electricity capacity (Watts per capita)	Agricultural tractors (per 10 000 hectares of arable land) Early fifties	Primary schools (enrolment as a percentage of the population aged 5-14) Early fifties
Argentina	33	118	10	68
Bolivia	34	34	21	28 ^{b/}
Brazil	67	63	15	34
Colombia	43	44	26	30
Costa Rica	61	106	13	51
Cuba	41	115	48	43
Chile	137	142	36	56
Ecuador	25	24	3	42
El Salvador	68	34	9	33
United States	207	920	222	86
Guatemala	80	16	6 ^{c/}	23
Haiti	72	12	1	20
Honduras	35	15	3 ^{c/}	27
Mexico	44	79	25	47
Nicaragua	16	34	52	35
Panama	41	47	9	56
Paraguay	14	40	3	57
Peru	164	64	24	42
Dominican Republic	42	51	9	45
Uruguay	61	124	76	45
Venezuela	39	94	15	43

Sources: Columns (1), (2) and (3): International Bank for Reconstruction and Development, Comparative data on Latin American countries (Washington, 1960). Column (4): UNESCO, World survey of education II. Primary education, table 15. For Nicaragua: United Nations, Report on the World Social Situation (Sales No. 1957.IV.3).

^{a/} The estimates of arable land refer to the most recent year for which figures are available. The highways included are non-surfaced roads that have been levelled and drained. Railways do not include light railways.

^{b/} 1952. Only public schools are included.

^{c/} Tractors of all types.

/With respect

With respect to the proportion of the annual product devoted to replacement and expansion of productive capacity considered as a whole, in the three-year period 1957-59 Latin America invested an average of 16 per cent of the annual gross product.^{17/} This is low compared to what is usually invested in countries with a higher level of per capita income, or whose growth rate is higher than that of Latin America. Thus, for example, as can be seen in table 15, the Federal Republic of Germany, the Netherlands, Norway, Japan, Sweden and Canada have been devoting about 20 per cent of their gross product to investment in recent years. The investment coefficient would appear to be even higher in the Soviet Union and other centrally planned economies. Although comparable investment coefficients are attained in some Latin American countries,^{18/} in most of them the level is very much lower. Moreover, there is no clear indication that the rate of capital formation is increasing in Latin America as a whole; on the contrary, there has been a decrease in the last few years resulting from the relative decline in external purchasing power.

^{17/} This figure is based on thirteen countries that together represent at least 90 per cent of the region's gross domestic product.

^{18/} The investment coefficients for different countries may not be strictly comparable, since there are often differences in local relative prices, as well as differences in the economic concepts of investment and product. However, in practice these differences are not great enough to affect the general conclusions drawn here, except in certain cases where in recent years countries have suffered severe distortions in their price structures. It would appear, from an attempt made to improve these estimates for a group of Latin American countries on the basis of ECLA studies comparing prices of consumer and capital goods, that the real coefficient of investment in Argentina may be much lower than that calculated in terms of national prices, the difference probably being of the order of 20 or 30 per cent; similarly, the coefficients for Brazil and Peru would be 10 per cent less. On the other hand, the coefficients would be higher for Ecuador (20 per cent), Colombia (10 per cent) and Mexico (10 per cent). See ECLA, Comparative prices and the purchasing power of currencies in selected Latin American countries (E/CN.12/598, March 1961).

Table 15

INVESTMENT COEFFICIENTS, ^{a/} 1957-59 AVERAGE
 (Percentages)

	Investment coefficients		Investment coefficients
<u>Latin American countries</u>		<u>Non-Latin American Countries</u>	
Argentina	22.3	Canada	23.3
Brazil	11.1	Ceylon	12.6
Chile	9.9	United States	16.0
Colombia	12.5	Philippines	7.8
Costa Rica	21.7	France	18.2
Cuba	19.1	Ghana	10.7
Ecuador	12.5	Japan	27.5
El Salvador	16.7	Norway	29.5
Honduras	13.9	Netherlands	22.1
Mexico	14.9	Portugal	16.4
Panama	16.8	Federal Republic of Germany	22.2
Peru	18.0	Sweden	21.5
Venezuela	23.1	Turkey	14.5 b/

Sources: ECLA, on the basis of national statistics; United Nations Statistical Office, Yearbook of National Accounts Statistics, 1960, New York, 1961.

a/ Relation between gross fixed investment and gross domestic product, both at constant prices.

b/ Gross fixed investment and gross domestic product, both at current prices.

A low rate of capital formation is also found in other regions with low income levels. Thus, in 1957-58, for example, the gross investment coefficient was only 8 per cent in the Philippines, 11 per cent in Ghana, 13 per cent in Ceylon, 14 per cent in Turkey and 16 per cent in Portugal.

Without attempting to establish an exact functional relationship between the investment coefficient and the growth rate, it is instructive to refer to recent experience in Latin America in this respect. During the period 1945-59 the average investment coefficient for a group of ten Latin American countries was 16 per cent, while the annual growth of the product was 4.6 per cent, which indicates a ratio of 3.7 between the two.

In broad terms it may be deduced from this comparison that if the aim were to increase the growth rate of the product, which was only 2 per cent per capita, it would be necessary to increase the above investment coefficient to something approaching that in other countries whose growth rate is much more rapid than Latin America's. It is, of course, necessary to take into account, in determining the required investment coefficient, the capital goods accumulated in the immediate post-war years, the capital-goods replacement requirements, the productivity of existing capital, and the conditions peculiar to Latin America with respect to capital-output ratios, in relation to those in other areas in course of development referred to for purposes of comparison.

Another factor of particular interest, because it affects capital formation, is the participation of the public sector in this field in Latin America, since it is here that investments are made in basic sectors which provide the stimulus for economic and social development. The contribution of the public sector has tended to increase during the last ten years, and attained the high average level of 30 per cent of all investment, although in some Latin American countries with the lowest income levels the coefficient is significantly lower. In the United States it is about 20 per cent; in other countries such as Canada, the Federal Republic of Germany and Japan the share of the public sector is comparable to the average in Latin America, and in France, the Netherlands and Sweden, it is higher.

The composition of investment is no less important for economic growth than is the absolute level of capital formation. Investment may be more or less productive according to the nature of the asset, the way in which it is combined with other factors of production, and the extent to which it embodies the latest advances in technology. Experience shows that in a number of instances a relatively large share of gross fixed investment has gone into luxury housing and other forms of low productivity assets.

Broadly speaking, and to put the problem in a highly simplified form, it can be stated that for Latin America as a whole there are two kinds of factors that militate against an increase in capital formation, and they are basically related. One is the level and distribution of income, and the other the external vulnerability of the Latin American economies and their dependence on foreign sources for the supply of capital goods.

It is obvious that a country with a low per capita income will have a serious difficulty in achieving the increased capital formation needed for its growth, which requires the maintenance of minimum levels of consumption. This situation can of course be improved to the extent that the Government adopts a policy directed to the better utilization of resources to meet internal and external demand. Important aspects of such a policy would relate to correcting the undesirable effects of inequitable income distribution. Apart from such measures, the vicious circle of poverty and lack of capital can only be broken by technical and financial co-operation from abroad, which is essential if the economy is to attain the level of income and other conditions that will enable it to sustain its own future development unaided. The other problems of capital formation in Latin America relate to the fact that most durable investment goods - machinery, equipment and commercial vehicles - must be purchased abroad, since there is no significant production of such goods except in Argentina, Mexico and Brazil, and the import content of capital formation is high in six countries in the region (see table 16). In other countries there are practically no metallurgical industries manufacturing capital goods, all of which have to be supplied from abroad.

Table 16

PERCENTAGE OF IMPORTS IN THE SUPPLY OF SELECTED GOODS
 IN CERTAIN LATIN AMERICAN COUNTRIES

Country	Capital goods a/ (1957-58)	Finished steel (1958-59)	Chemical products (1959)	Paper and paperboard b/ (1955-57)
	(1)	(2)	(3)	(4)
Argentina	18	39	16	31
Brazil	53	18	14	26
Colombia	71 d/	54	38	67
Chile	72	e/	38	15
Mexico	41	8	30	26
Venezuela	99	100	67	85

- Sources: (1) ECLA studies on economic development, and official statistics.
 (2) ECLA, A study of the iron and steel industry in Latin America (E/CN.12/293/Rev.1; ST/TAA/Ser.C.16, 1954) and national statistics.
 (3) ECLA, El mercado latinoamericano de productos químicos (E/CN.12/591, 1961)
 (4) ECLA/FAO/BTAO Pulp and paper advisory group for Latin America, Pulp and paper in Latin America: present situation and future trends of demand, production and trade (E/CN.12/570, 1961).

a/ Machinery, equipment and commercial vehicles.

b/ Including newsprint.

c/ 1954-55.

d/ 1956-57

e/ Net exporter.

The dependence with respect to the development of external trade means that both the level of investment and to some extent income coefficients are closely linked with the behaviour of external purchasing power. Approximately 70 per cent of Latin American imports consist of capital goods and intermediate products. Consequently, a relative or absolute decline in the capacity to import cannot be offset by reduced imports of consumer goods (which are comparatively small in some cases and for which there is a mass demand in others) or intermediate goods, since that would directly affect the level of production and employment. Thus the countries concerned resort to reducing imports of capital goods. When such emergency solutions become chronic conditions, they not only adversely affect the growth rate, and also the level of income, at the time, but they also restrict productive capacity in the future, so that the country must redouble its efforts to start up the growth process again once its external purchasing power is restored.

2. Capacity to import

Exports have traditionally provided the major stimulus to economic development in the countries of the region. For some years now, however, with few exceptions Latin American exports have lagged behind the growth in world production and trade. As figure VI shows between 1948 and 1957 the volume of exports of all the under-developed countries rose by 66 per cent, whereas those for Latin America rose by only 39 per cent. Moreover, if petroleum is excluded, the growth in the volume of the region's exports amounts to less than half that for all primary producing countries.

In addition, the slow growth in export volume has been accompanied by deteriorating terms of trade since 1951, and the situation has further worsened since 1954, so that the current purchasing power of the region as a whole has tended to decrease in relation to population growth.

Figure VI

QUANTUM INDEX OF EXPORTS, BY REGIONS, 1948-60

(Indices: 1948 = 100)

Natural scale

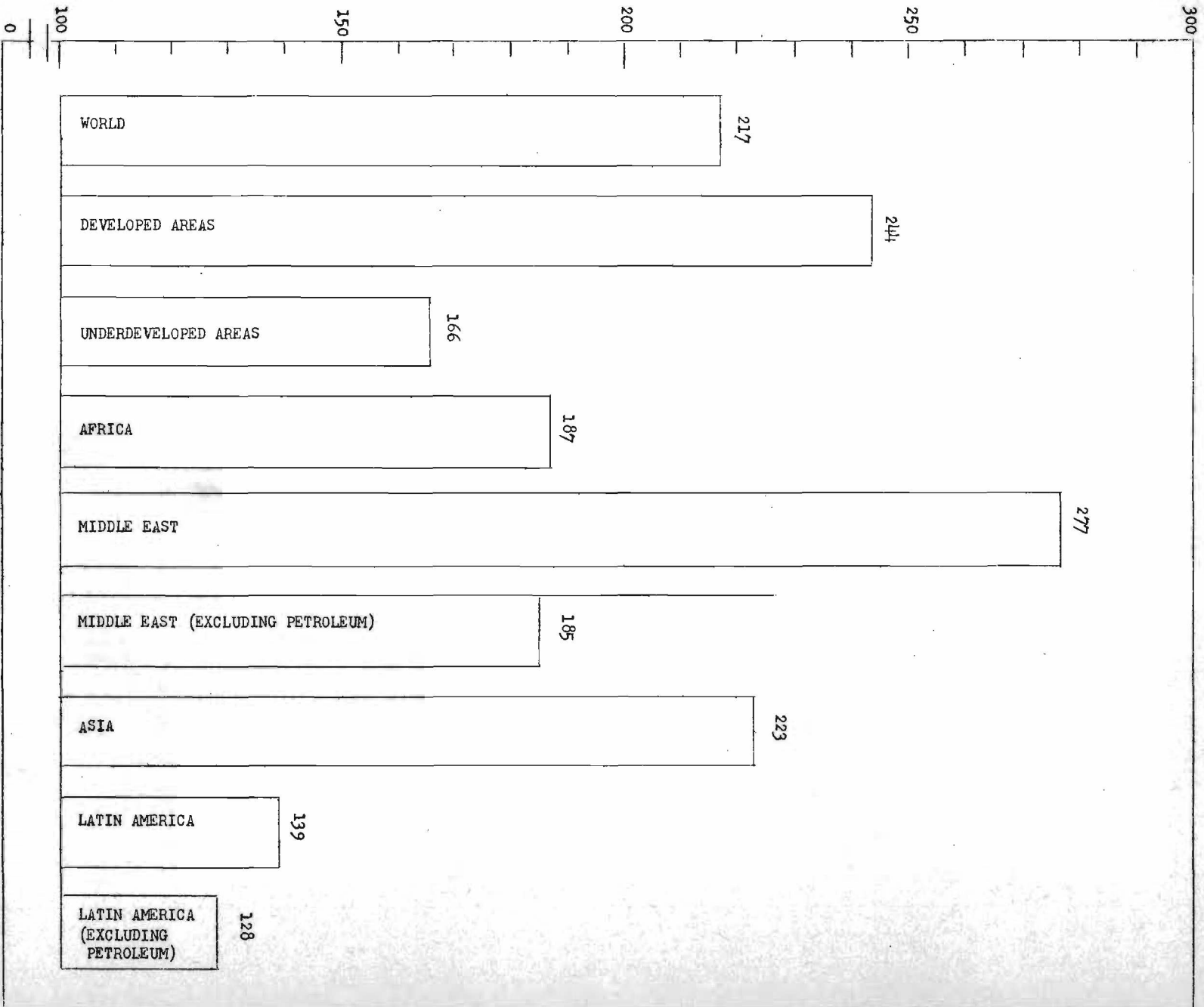
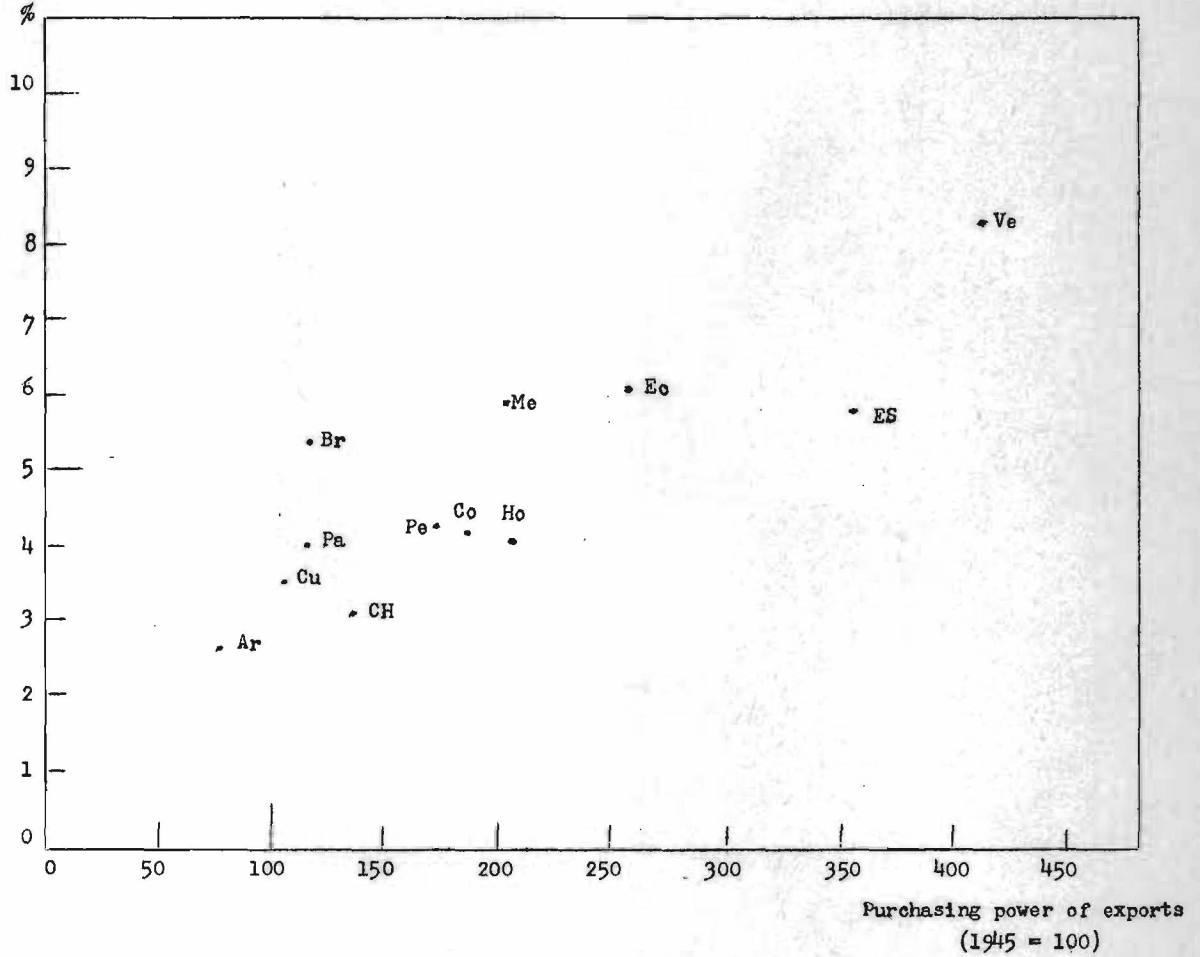


Figure VII

RELATION BETWEEN RATE OF GROWTH OF GROSS DOMESTIC PRODUCT AND
PURCHASING POWER OF EXPORTS, 1945-59

Natural scale

Rate of growth of gross
domestic product



- Ve - Venezuela
- ES - El Salvador
- Eo - Ecuador
- Me - Mexico
- Ho - Honduras
- Co - Colombia
- Pe - Peru
- Br - Brazil
- Pa - Paraguay
- Cu - Cuba
- CH - Chile
- Ar - Argentina

Source: ECLA, on the basis of national statistics.

Figure VII shows the relationships that obtained in 1945-59 between variations in the product and the capacity to import in a group of countries. It can be seen that there is a very close connexion between the growth rate of production and the expansion of the capacity to import, expressed in terms of the purchasing power of exports. This means that the growth rate was higher in those Latin American countries where there was also a considerable increase in the capacity to import. In fact the latter affects the growth process in two ways; firstly, it operates in the form of demand (external) for domestic production, and secondly, it makes internal development possible by providing the foreign currency required for imports of intermediate and capital goods needed to increase both present production and future productive capacity.

The slow growth in demand for the traditional Latin American products has been due to a number of factors, including the substitution of synthetics for natural materials, the stimulation and protection of domestic primary production and agriculture in the industrialized countries, and the opening up of new and sometimes cheaper supply sources outside Latin America. Moreover, Latin American exports have to some extent been adversely affected by the lower post-war growth rate in income in the United States, a major traditional market for Latin American goods.

In addition to the lag in the growth of exports and its purchasing power, there is the fact that as a whole the particular commodities which Latin America sends abroad are subject to extreme short-period fluctuations in price and volume. Between 1948 and 1957, for example, the average annual fluctuations in the world export value of those primary products which are most important to Latin American countries ranged from 17 per cent for wool to 4 per cent for bananas and crude petroleum.^{19/} The value of coffee exports, the leading export commodity in seven countries of the region, was subject to average annual fluctuations

^{19/} United Nations, World Economic Survey 1958 (Sales No.: 59.II.C.1).

of 9 per cent over the same period. The Latin American economies are especially vulnerable to fluctuations of such magnitude because of the extreme degree of specialization that characterizes the structure of their exports. Thus most of the countries of the region suffer from periodic shocks to their economies which in the first instance are reflected in variations in the capacity to import and ultimately in unstable movements in output. These circumstances have increased the difficulties in the way of high and sustained rates of economic growth.^{20/}

In summing up, mention should be made of two structural factors that make it difficult for the region to increase its external purchasing power. One is the existence of rigidity in the domestic market, which impedes the prompt adjustment of supply to world market conditions, and the other is the present composition of Latin American foreign trade. External demand for the goods traditionally produced by Latin America, even in the absence of other limiting factors, will always tend to increase less than its import requirements, because of the sharp differences in the elasticity of demand coefficients of the two categories of goods.

3. The position of agriculture

The fact that in the Latin American economies agriculture absorbs half the active population, but contributes less than a quarter of total output, is one of the region's main economic development problems.

Agriculture, is the main source of exports, contributing over 60 per cent of all Latin American exports. Moreover, agriculture provides most of the local food requirements, and only a few countries in the region are net importers of agricultural products on a major scale, although in recent years such imports have tended to increase.

^{20/} ECLA, Economic Survey of Latin America 1960 (E/CN.12/565), chapter I.

Many social, educational and technological factors are responsible for the continued state of backwardness of the agricultural sector, and these, together with the structure of land tenure and land use, are the chief causes of the marked inequality in income distribution noted in many Latin American countries.

Compared with other regions at a similar stage of development and bearing in mind the potential production capacity and low population density which are its characteristics, Latin America obviously can do much to raise its production levels. However, production methods and systems far different from those now applied would have to be devised. While the region does have a few agricultural enterprises run on most efficient lines and sensitive to market changes - particularly among those which concentrate on exports or on specific products for the domestic market - for a number of reasons the vast majority are still cut off from marketing channels or, considering their potential in natural and human resources, do not play a sufficient part in them from a quantitative and qualitative standpoint.

The lack of dynamism in the agricultural sector, viewed as a whole, is shown by the pattern of production during the past twenty-five years. In fact, according to FAO's figures, per capita agricultural production only recently approached its pre-war levels. The trend improved during the post-war years, since the rate of growth was slightly higher for production than it was for the population; data for the period between 1948-50 and 1957-59 show that the production growth rate was only 0.8 per cent higher than the population growth rate (see table 17). However, the results achieved are far from satisfactory if viewed in terms of the quantitative and qualitative changes in internal demand which must certainly have occurred and of the trend of Latin America's share in the world agricultural commodity markets.

A study of branches of activity shows that while per capita agricultural production increased by a total of 11.5 per cent in the period between 1948-50 and 1957-59, livestock production declined by 5 per cent during the same period.

Table 17

LATIN AMERICA: INDICES AND GROWTH RATES OF TOTAL AND PER CAPITA AGRICULTURAL PRODUCTION, 1948-50, 1952-54 AND 1957-59 ^{a/}

	By sector of origin		By intended use		Total
	Crop farming	Stock farming	Domestic consumption	Export	
<u>(a) Total agricultural production</u>					
1948-50	100.0	100.0	100.0	100.0	100.0
1957-59	139.4	121.8	140.6	127.0	135.6
Annual rate of growth (1948-50 to 1957-59)	3.8	2.2	3.9	2.7	3.4
<u>(b) Per capita agricultural production</u>					
1948-50	100.0	100.0	100.0	100.0	100.0
1957-59	111.5	95.2	112.8	101.8	107.7
Annual rate of growth (1948-50 to 1957-59)	1.2	-0.5	1.3	0.2	0.8

Source: ECLA, on the basis of national statistics.

^{a/} Original values in terms of dollars at 1948 prices.

/Production for

Production for domestic consumption increased at a more rapid rate than production for foreign markets but was not sufficient to meet the region's growing requirements. The low levels of food consumption and the poor diet in most of the Latin American countries indicate that the region as a whole has far to go before it reaches the minimum nutritional standards recommended by experts. Moreover, if account is taken of the changes in the pattern of consumption which have occurred since the war as a result of the increase in per capita income, the shifts of the rural population to urban centres, and the prevalence of high coefficients of income elasticity in the demand for agricultural products (particularly foodstuffs), it is clear that the increase in production has not kept pace with the growth of demand. The inadequate increase in production is also evident. In fact, from the behaviour of wholesale agricultural prices as well as of foodstuffs, considered in terms of the general level of prices or the cost of living index, it will be seen that in most of the Latin American countries the demand for agricultural products has remained unsatisfied to a greater extent than the demand for other goods or services. Lastly, the increase in imports of foodstuffs is to some degree a reflection of the inability of domestic production to meet internal requirements.

Table 17 shows that production for export as a whole increased only slightly more than the rate of population growth. However, the experience has not been the same for every country. While Mexico, Ecuador, El Salvador, Peru and Nicaragua have achieved a spectacular increase in their exports, there has been a sharp drop in exports from Argentina, Brazil, Uruguay and Colombia. This marked difference is explained by the fact that the first group of countries managed to do so well because of the diversification of their exports and the introduction of new products. The pattern of sales for the second group of countries, on the other hand, remained virtually unchanged. Since these countries have a considerable effect on the region's over-all agricultural exports, Latin America's share of the world markets has dropped sharply.

/Thus, of

Thus, of the eleven major products - which account for 90 per cent of the region's agricultural exports - only one, namely sugar, showed a slight increase in tonnage on the world market between the immediate post-war period and the last few years. The greatest decline was experienced by maize, linseed oil and, in general, those products which are typical of the temperate zone (see table 18). While factors unrelated to the efforts of the exporting countries contributed to this downward trend of Latin America's share of world trade,^{21/} it is equally true that the Latin American countries have, in varying degree, failed to show sufficient flexibility to adapt themselves to changing market conditions and to develop an energetic foreign trade policy which would stimulate the development of new products. The example of Mexico and a few other countries is very enlightening in this respect.

With respect to production and supply conditions, it has already been pointed out that many diverse factors contribute to the low productivity and slow growth rate of agricultural production. These include the system of land tenure and land use, the low technical and educational level, the scanty capital endowment, the inadequate social and economic organization of production, unsatisfactory marketing systems, the scarcity of direct technical assistance to the farmer for improving his farm and, in general, the absence of any integrated and coherent policy to promote the development of all aspects of the rural economy. The obstacles to an improved and more harmonious development of the agricultural sector are closely interrelated and it will be seen that the land tenure system prevalent in most Latin American countries is a particularly influential factor.

While it would be hazardous to venture an estimate of the potential wealth of agricultural land in the region, it is known that both the land and the people living on it are not being properly used and that both the volume of production and the unit yield could be increased

^{21/} See above, Section II, 2.

Table 18
 SHARE OF LATIN AMERICA IN WORLD EXPORTS OF SELECTED
 AGRICULTURAL COMMODITIES
 (Percentages of tonnage)

Commodity	1934-38	1945-47	1948-50	1957-59
A. Temperate zone products				
Wheat <u>a/</u>	19.9	9.4	9.4	9.0
Maize	64.9	52.3	40.8	20.5
Wool <u>b/</u>	17.7	24.2	18.3	13.4
Meat <u>c/</u>	49.6	39.0	40.2	33.3
Linseed oil	-	87.0	69.2	53.7 <u>d/</u>
B. Tropical zone products				
Sugar	34.1	59.1	66.2	60.5
Cotton <u>e/</u>	10.7	23.4 <u>f/</u>	14.7	21.7
Coffee	84.2	84.9	84.5	71.1
Tobacco	10.6	17.0	13.0	10.2 <u>d/</u>
Cacao	26.9	27.7	26.1	25.7
Bananas	63.6	83.0	74.2	78.6

Sources: FAO, Yearbooks of Trade and The State of Food and Agriculture 1960, Rome, 1960;
ECLA, Economic survey of Latin America, 1957, United Nations Publication, Sales No:
58. II. G.1.

a/ Including wheat flour, in terms of wheat equivalent.

b/ Real weight.

c/ Fresh, chilled and frozen beef, veal, mutton, lamb and pork.

d/ 1956-58.

e/ Fibre.

f/ 1946/47.

/considerably through

considerably through a system of land use based on a more suitable institutional and technical structure. In fact, Latin America comprises 6.8 per cent of the world population and over 15 per cent of the total area. While much of the region consists of forests and natural grasslands, a considerable percentage of it could be put to better use. Experience shows that production growth is closely related to the utilization of new land. Unit yield, on the other hand, has increased much less than in the industrialized countries and even in countries at a similar stage of development. The difference would be sharper if Mexico, where basic investment in development has been made, and some other countries where the use of virgin land has produced an increase in yield, were excluded. This would indicate that Latin American farmers do not usually direct their efforts towards a more intensive use of their land and that the consequences of this inertia have been more unfavourable in countries where prospects of an expansion of the agricultural frontier are more limited.

Table 19, based on information collected by the Inter-American Statistical Institute,^{22/} supplemented by inquiries conducted by certain countries, shows the distribution of land in Latin America by size of farm. This gives some idea of the degree of concentration of ownership for the region as a whole in 1950 or thereabouts. Although since then this distribution has changed appreciably, as a result of reforms and other measures in various countries, the figures still indicate the magnitude of the land tenure problem in most Latin American countries. As the table shows, at that time 1.5 per cent of farms in Latin America represented almost 65 per cent of the total agricultural acreage whereas, at the other end of the scale, the land farmed by nearly three-quarters of the farmers totalled less than 4 per cent.

In addition to the fact that the land was distributed so unequally, a considerable proportion (nearly 40 per cent) was not cultivated directly by the owners. Even in the case of landed estates which it was assumed were being developed by the owners themselves, many had in actual fact been placed in the hands of managers. In view of the

^{22/} La estructura agropecuaria de las naciones latinoamericanas,
Pan American Institute, Washington, 1957.

Table 19

LATIN AMERICA: ESTIMATED PERCENTAGE DISTRIBUTION OF
 AGRICULTURAL HOLDINGS AROUND 1950

Size of farms (hectares)	Percentages of all farms	Percentage of total farm areage
0 - 20	72.6	3.7
20 - 100	18.0	8.4
100 - 1 000	7.9	23.0
1 000 and over	1.5	64.9
Total	100.0	100.0

Source: Oscar Delgado, *Estructura y reforma agraria en Latinoamérica* (mimeographed), cited by T. F. Carrol, "The Land Reform Issue in Latin America", *Latin American Issues*, edited by A. Hirschman, (New York, Twentieth Century Fund, 1961).

/peculiar system

peculiar systems of share-cropping, leases and other juridical methods in force in Latin America in which - unlike other areas - the farmer is required to put up most of the capital, the low economic capacity of the land and the reduced level of technology prevalent make it clear that the land is not being put to the best use. Another category of farmers, fairly widespread in the region and referred to under the generic term of "tenants", further reduces the possibility of a rational development of land. The erosion from which large areas of Latin America are suffering can largely be attributed to this factor.

One of the problems that arises from the pattern of land distribution prevailing in many Latin American countries is that there are holdings that are too large (latifundios) and others that are too small (minifundios) to be economically operated. There is a relative shortage of medium-sized family farms cultivated by the owners themselves, employing appropriate techniques, and alert to market influences and technical advances.^{23/} In brief, this land tenure structure leads to inefficient utilization of resources and to the low productivity prevailing in the agricultural sector; the situation is aggravated because the other sectors, to some extent hampered by this lag in agriculture, cannot provide productive employment for the surplus labour force of the rural areas.

With respect to farming techniques, an indication of the low capital intensity in some Latin American countries can be obtained from the following comparisons. In Argentina, where agriculture as a whole has achieved a relatively high level of development, capital per worker in this sector is less than half of that for the economy as a whole;^{24/} in Mexico^{25/} it is about a quarter, and in Peru^{26/} and Venezuela^{27/} about a third.

23/ "Three sociological aspects of economic development", Economic Review of Latin America, Special issue, August 1955.

24/ ECLA, El desarrollo económico de la Argentina (E/CN.12/491/Rev.1; Sales No.: 59.II.G.3), Vol. II.

25/ ECLA, External disequilibrium in the economic development of Latin America: The case of Mexico (E/CN.12/428).

26/ ECLA, Analyses and projections of economic development. VI. The industrial development of Peru (E/CN.12/493; Sales No. 59.II.G.2).

27/ Memoria del Banco Central de Venezuela (Caracas, 1961).

Although a similar difference between agriculture and other sectors with respect to capital per worker exists in more economies with higher income levels, the difference is much more marked in Latin America. The natural result is lower productivity and lower income than in other economic sectors, and in the final analysis, this helps to accentuate the already extremely inequitable income distribution.

With respect to the technological level of the agricultural sector, it is a fact that illiteracy coefficients - already high in the region - reach very high proportions in rural areas. Unless rural elementary education is expanded the situation is unlikely to improve as far as increased knowledge of agricultural techniques is concerned. In fact the shortage of skilled workers, at both intermediate and higher levels, is quite serious in Latin America. A recent FAO survey showed that there were 16,000 agricultural experts in Latin America when 42,000 were needed. Costa Rica, where the average levels are higher than in the other Central American countries, had only one agronomist for every 150,000 inhabitants. In the case of intermediate levels of training, a survey by the Pan-American Union revealed that in 1956-57 Latin America had 140 secondary agricultural schools, with an enrolment of 9,700 pupils, only 1,300 of whom completed their studies. In 1955, there were 6,700 students in the whole of the region, enrolled in forty-five schools of agronomy, but usually only one-fifth of them completed their studies.

The distribution of farm products is inefficient and costly in Latin America as a whole, owing to the lack or inadequacy of transport, warehouse facilities and marketing methods. In many cases the wholesale trade is in the hands of a few enterprises, and the lack of competition tends to encourage excessive profit margins and high retail prices, in combination with relatively low prices for the producer. The general effect is to limit the volume of production for the market and the expansion of agriculture as a whole.

/In the

In the absence of a sustained policy of encouraging agriculture linked to an integrated policy of economic and social development, measures have sometimes been adopted that have adversely affected agricultural production. Two common examples will serve to illustrate this point; the first is exchange policy, which in some countries has at times maintained terms of trade unfavourable to export products, and the second is the system of price controls. The maintenance of these measures has distorted the price structure both within the agricultural sector and in relation to other sectors, with effects very different from those intended, and adding to the existing difficulties in certain agricultural sectors.

4. Problems of the public sector

Expenditure by the public sector represents an important part of the total national expenditure in most countries of the region, and this proportion has tended to increase in recent years. Of particular significance is the fact, referred to above, that about 30 per cent of the total investment in Latin America is undertaken by the public sector and flows into key branches of the economy. The composition of public expenditure as a whole, however, is not always consistent with the requirements of a policy of economic growth. In this connexion the following points should be mentioned:

(a) The high proportion of expenditure on consumption, including the costs of maintaining a large staff and an expensive and often inefficient administrative machinery.

(b) The heavy burden represented in many countries of the region by transfer payments, many of which are for subsidies and social security. To some extent this expenditure is for basic needs and consequently any attempt to reduce it would create serious social problems.

(c) The low relative share of investment in public expenditure, which is below that usually found in countries at a similar stage of development in other areas,^{28/} and is in many cases combined with the additional disadvantage that a high proportion of the investment itself goes into non-productive construction.

By way of illustration, table 20 shows the tax burden in selected Latin American countries, that is, the percentage coefficient obtained by comparing total tax revenue with income for each country. In addition the table gives the corresponding coefficients for countries outside the region. The comparison of the two groups shows that the industrial countries with a higher level of income have a heavier tax burden than the Latin American countries. On the other hand, in the southern European countries of Italy, Greece and Portugal, where the level of income is closer to that in Latin America, the tax burden is also very similar.

On the side of public revenue, most Latin American countries rely heavily on taxes on foreign trade. Consequently, government revenue is subject to frequent and sharp variations brought about by changes in the external sector. Indirect domestic taxes are another large source of revenue, and in many countries in the region they accentuate the existing inequitable distribution of the tax burden. Direct taxation, on the other hand, especially that on agricultural property, is usually very low in relation to taxable capacity.^{29/} This taxation, already very light, has been reduced even further in the countries where there is strong inflation.

In many cases the tax system is unsatisfactory, and it is felt that there is room for a great deal of improvement. This is illustrated by the widespread evasion of both personal^{30/} and indirect taxes, especially taxes on imports.

^{29/} The contribution of rural real property to the exchequer in Latin American countries is usually less than 2 per cent of total tax revenue.

^{30/} In Argentina, according to a study by the Central Bank, evasion during the period 1946-57 amounted to between 42 and 62 per cent of income. In Chile it amounted in 1956 to double the total collected. (See El sistema tributario chileno, Oficina de Estudios Tributarios, Ministerio de Hacienda, Santiago, 1957.)

Table 20

RELATION BETWEEN TAX INCIDENCE AND PER CAPITA INCOME LEVEL
 IN SELECTED COUNTRIES, 1958-59

Country	Tax incidence (percentage)	Per capita income level (dollars at 1950 prices)
<u>Latin America</u>		
Venezuela	20.0	1 000
Panamá	12.5 a/	350
Chile	22.9 b/	325
Colombia	12.0	300
Brazil	21.6 a/	250
Costa Rica	16.3	250
Peru	13.4 a/	175
Ecuador	17.2	140
<u>Other countries</u>		
United States	32.2	2 060
Canada	26.6	1 460 c/
United Kingdom	33.2	1 150
France	38.6	1 090
Italy	22.8	590
Greece	23.3	290 c/
Japan	24.0	250 c/
Portugal	19.8	200 c/
India	9.0 d/	62 c/
Sweden	33.0	

Sources: For Latin America: ECLA, on the basis of national statistics. For other countries: United Nations Statistical Office, Yearbook of National Accounts Statistics, 1959, New York, 1960. For per capita income level in countries marked c/: S. Andio and A. T. Peacock, op.cit.

a/ 1957-58.

b/ 1959-60.

c/ 1957.

d/ 1956-57.

The problems referred to above, concerning the increase of investment in basic social capital in fields that are traditionally government responsibilities, the provision of urgently needed social services to remedy a rapidly worsening situation, and a more equitable distribution of income, among others, are an indication that any economic and social development policy in Latin America would have to involve careful consideration of a tax reform in line with the plans drawn up.

5. Inflation

Unlike other growth problems, that of inflation cannot be defined with exactitude, since it is largely dependent upon past experience and present conditions in each individual country. Thus, for example, an annual price increase of 4 per cent may be a serious symptom of disequilibrium in one country, while in another it may facilitate the inter-sectoral mobility of resources and provide an incentive to the acceleration of economic activity.

In recent years there has been a strong inflationary trend in most Latin American countries, resulting in a continuous and significant increase in prices. If this price movement is considered in conjunction with the growth rates of output for all the Latin American countries, no clearly defined association between the two variables emerges (see table 21). There are countries with sharp rates of price increase accompanied by high rates of growth in output, while in others inflation has been associated with a relative stagnation of output. Among those countries where prices have increased more slowly and have even remained relatively stable at times, on the other hand, there are cases of both rapid and slow economic growth. Thus, although Latin American experience shows that growth and inflation are connected it cannot be stated that there is any simple and clear relationship between them.

Table 21

RELATION BETWEEN INFLATION AND ECONOMIC GROWTH IN LATIN AMERICA, 1945-59

Country ^{a/}	Rate of growth of gross domestic product (percentage)	Average annual rise in cost of living (index units)	Number of national currency units to the dollar ^{b/}		
			1945	1951	1959
Venezuela	8.3	4	3	3	3
Costa Rica	6.9	5	6	7	7
Dominican Republic	6.8	2	1	1	1
Nicaragua	6.8	1	6	7	7
Ecuador	6.1	13	14	17	17
Mexico	5.9	16	5	9	12
El Salvador	5.8	5	3	3	3
Brazil	5.4	57	20	20	202
Peru	4.3	26	7	15	28
Colombia	4.2	19	2	3	7
Honduras	4.1	3	2	2	2
Panama	4.0	1	1	1	1
Cuba	3.5	2	1	1	1
Uruguay	3.4	27	2	2	11
Guatemala	3.3	5	1	1	1
Chile	3.1	340	32	93	1 052
Argentina	2.6	185	5	14	83
Paraguay	2.6	381	3	32	128
Haiti	1.8	...	5	5	5
Bolivia	1.1	1 257	64	247	11 885

Source: ECLA, on the basis of national statistics.

^{a/} Countries listed in declining order of growth rates.

^{b/} Measured in terms of national currency units to the dollar at the close of the year. Free market rates are adopted in cases where they are applicable and available. This table gives only a general indication of the movement of exchange rates.

/The growth

The growth process calls for a considerable increase in public and private investment. A treasury deficit is generated; there is an expansion of monetary income unaccompanied by an increment in production of consumer goods. If savings were to increase, the inflationary pressures would be offset. But it often happens that this does not take place on the necessary scale and in the requisite sectors. In short, the increase in aggregate demand is counterpoised by a rise in prices and intensified pressures on the balance of payments, a process which is aggravated by the upward pressure of wages. In face of such a situation, fiscal policy is much too weak to curb a purchasing power that outstrips the development of supply. Thus, once inflation begins with a rise in prices, additional forces are set in motion which, one after another, spur it on.

A country with a low level of income that seeks development through a rapid rate of growth faces certain pressures that may lead to inflation. Whether inflation occurs, and its degree, depends on such factors as (a) the rate at which the economic transformation takes place; (b) the favourable or unfavourable influence of external factors affecting the economy; (c) the flexibility of the domestic economy, as regards the structure of production and a large number of institutional, social and cultural conditions, in adapting itself to the changes; and (d) the extent to which the Government's economic and social policy helps or hinders the process of economic and social change involved in development.

As indicated in previous sections, there are in Latin America difficulties of an economic and social nature that hamper a rapid and efficient transformation that will enable production to respond to changes and growth in general demand. Consequently, the success of any attempt to attain a high growth rate combined with stability depends largely on the Government's ability to carry out a suitable economic and financial policy, and on the possibility of obtaining external co-operation at the right time and on the right terms.

III. THE PROSPECTS FOR ECONOMIC GROWTH AND THE PLANNING OF DEVELOPMENT IN LATIN AMERICA

1. Development outlook and development planning

Some indication has been given above of the main features of the economic condition of Latin America and of the growth problems relating to the region's development, including the low standard of living, employment problems and low productivity, together with the main obstacles in the path of the countries of the region in their attempt to break out of a state of stagnation or achieve a more rapid rate of progress.

Particular consideration has been given to the low investment coefficient and the faulty structure of capital formation for the increase of productive capacity, the extreme inequality of income distribution, the complex problem of the lag in the rural economy, the insufficient industrial development, the technological backwardness, the shortage of tax revenue for the provision of social services and basic capital formation by the public sector, and the vulnerability and limitations imposed on the Latin American economies by the structure of production and of foreign trade, and by the inadequate purchasing power provided by the latter. In the actual economic and social conditions all these factors operate in close correlation, in conjunction with a low educational level and within a framework of political and economic institutions which in important respects often constitute serious obstacles to the solution of these problems. The lack of a vigorous and consistent policy of economic and social development, with well defined aims, has helped to make this state of affairs a chronic condition.

The magnitude of these problems, and in particular the serious limitations on development deriving from the external sector, justify the conclusion that development prospects are far from promising, unless some vigorous plan of action is undertaken in all economic and social fields.

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There is a surprising contrast between this situation and outlook and Latin America's rich endowment in natural resources that could be economically exploited, particularly in view of the fact that there is no quantitative limitation on human resources nor, generally speaking, any over-population problems.

In some Latin American countries, despite such obstacles, it has been possible to maintain the pace of economic development by means of an expansion of domestic activities stimulated essentially by basic investment and the process of industrialization. However, this powerful new stimulus now in turn appears to be constricted by the inadequate external purchasing power of Latin American countries; moreover, it will be more difficult to exploit in future because more complex techniques will have to be introduced and a higher standard of performance reached by the countries concerned.

It is realized in Latin America that future growth depends essentially on a sound and intelligent planning of measures of economic and social policy that will establish specific development aims to be reached in the shortest possible period. This is so urgent a matter that, even on the assumption that conditions are more favourable than those now prevailing, and that Latin America as a whole continues to maintain the growth rate of the last decade, it will take a generation to double the present low per capita income of 300 dollars; moreover, there is every indication that the situation will be comparatively less favourable than it is now, to judge by the current growth rates both in Western European countries and in the centrally planned economies.

At Punta del Este the Latin American countries agreed to carry out development plans with the basic aim of tackling and eliminating the obstacles referred to in preceding sections of the present document, although it cannot be said that there is any consensus as to the kind of instruments to be used or the vigour of the measures to be employed. Planning must be used to mobilize efficiently all the national resources so that, with external technical and financial co-operation, an increase

in income can be attained at the earliest moment so as to permit a higher level of capital formation, to increase productive capacity and make possible a stable subsequent development with a more equitable distribution of the national income.

Major problems with which Latin America must deal by means of appropriate development plans are the achievement of a rapid growth in agricultural production in conjunction with the indispensable land reforms and industrialization, and the revision of the tax systems in order to meet the requirements of development plans from the fiscal, economic and social standpoints. All this will have to be done without neglecting the most immediate needs in the economic and social fields. For this purpose archaic institutions must be abolished and a social climate encouraged that will facilitate all the changes that a development process involves.

No less essential than technical and financial external aid is more vigorous co-operation among the Latin American countries themselves, which is vital if new prospects are to be opened up and specific growth possibilities increased in the region. In fact Governments are already taking positive steps in this direction through the establishment of the Free-Trade Area under the Montevideo Treaty, and Central American economic integration.

In assessing the direct responsibility of the educational system for creating the social and cultural climate and the skilled labour force required by the growth process, it is essential to understand the nature, and in some cases even the scale, of the changes that must be effected in that process. It is obvious that even at the stage when the plans are being drawn up and their execution is begun, far-reaching reforms will have to be made in public administration machinery, and professional and technical staff will have to be brought in who are at present lacking or available only in insufficient number.

The carrying out of wholesale land reforms will necessarily mean profound economic and social changes in the agricultural community and technological changes in land cultivation. Such changes will call for programmes of general education and specialized instruction for

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the agricultural worker and his family and for the training of the necessary technical workers. Industry, transport, communications and services will all involve advanced techniques that will require a higher proportion of skilled personnel.

Projections of certain typical activities will give some idea of the scale of the structural changes that may occur in production and generally throughout the economy of the Latin American countries in their development process. Thus, for example, it is estimated^{31/} that if the region as a whole developed at an annual growth rate of about 5.5 per cent and trade machinery were established to allow a certain amount of integration and mobility of factors between Latin American countries, it would be no exaggeration to state that by 1975 Latin America would require a domestic production of between 5,000 and 6,000 million dollars' worth of machinery of all kinds, which implies an increase of between 15 and 18 per cent over the present volume of such goods; the production of steel and steel by-products would have to be over 30 million tons, seven times the present figure; there would have to be a six-fold increase in automobile production, and a more than four-fold increase in the production of chemicals and other essential products such as petroleum derivatives, paper and paperboard. The relative growth required in consumer goods would be much less, but would nevertheless amount for some items to about twice that recorded in recent years.

Whatever the reliability of these figures as forecasts, they give an idea of the scale of the changes that will have to be made in the structure of employment, and the nature of the requirements to be met by the system of general education and vocational training in Latin America.

Thus, it will be useful to summarize briefly some features of the occupational structure in relation to the process of growth. If this is done by main sectors of activity, the projections show that employment will increase most rapidly in manufacturing, construction and certain services. In agriculture, on the other hand, a higher level of skill will be required, and there will be a relative decrease in

31/ See ECLA, The Latin American common market (E/CN.12/531; Sales No.: 59.II.G.4), Part B.

employment; in absolute terms, however, the present level may be maintained, or even increase somewhat, although undoubtedly at a slower rate.

In all these main sectors there will be other structural changes that will affect the educational system. Thus, in the industrial sector production and employment in the so-called dynamic industries will increase more rapidly than the traditional forms of consumer goods production. These more dynamic industries are the ones that generally use more complex technical processes and therefore require more skilled workers. This applies, for instance, to the production of mechanical and electrical equipment, metallurgy, and the chemical and petroleum derivatives industries. Obviously the labour force absorbed will continue to be greater in absolute terms in the traditional activities than in the more dynamic industries, especially in the early years.

Although the increase in employment in agriculture as a whole may be relatively much slower than in other activities, here too there will be internal and qualitative changes. Very important points relating to the educational systems are the economic and social organization of agricultural production, the introduction of new techniques and crops, and of new products, and the improvement of the administrative, marketing and distribution systems.

Broadly speaking, a trend can be expected towards a relative, and in some cases absolute, reduction of employment in activities with a fairly simple organization and technology, side by side with an increase in employment in more complex activities. That is, there may be a reduction in relative employment opportunities in the former and an increase in others requiring higher skills. In both commercial firms and government bodies providing public services, increased efficiency and the resulting changes in organization will also require higher levels of skill for all staff, and there will be an increase in the proportion of workers at the high and intermediate levels of skill and a tendency for the number of less skilled workers to be reduced.

For the training of more skilled workers, at various levels and in special fields, a relatively high standard of general education will be an essential prerequisite, at both the primary and secondary levels. Even where urgent problems can be solved by carrying out intensive training programmes of a fairly simple type, a minimum level of general education will at all times be necessary.

The training of skilled workers is a lengthy process. Consequently, investment in education must be planned and effected in good time and on an adequate scale. To do otherwise is to run the risk of hampering, or even completely nullifying, all efforts made in other fields to increase the rate of economic growth.

2. The role of education in economic development

The role that education can play in economic development is most obvious in relation to occupational skills, but its influence on technological inventiveness, diffusion of innovations, entrepreneurship, patterns of consumption, the propensity to save, adaptability to economic change and active participation of the different sectors of society in the tasks of development, is likewise important.

The idea that education has a high economic value is far from new, but studies aimed at determining the optimum allocation of resources to education with a view to its inclusion in integrated development plans are only recently being intensified. The subject is complex and involves many theoretical and practical problems. In the first place, education is at once a human right, a consumer good, an instrument for transmitting or changing the values of a society and a means of raising productivity; consequently, the economic and non-economic justifications for the extension and improvement of education can hardly be isolated from one another. In fact economic development may be as seriously endangered by a failure in fulfilling the individual and social aims of the educational system as by a failure in carrying out the strictly economic tasks. Secondly, the term "education" covers a wide range of services that differ in respect to their beneficiaries, their purposes

/and the

and the efficiency with which these purposes are accomplished. It is therefore practically meaningless to speak of the return on investment in education or of the optimum allocation of funds to education, in general terms, without further specification.

Again, the impact of different types of education on the economy varies with the level of development and the balance maintained between the different types themselves. Thus, for example, economic development is retarded if the educational system does not train enough graduates for specific occupations, or if it trains too many. The well-known problem then crops up of the "educated unemployed", and investment in this type of education becomes a waster of resources, or worse if the graduates are able to exert effective pressure to obtain unproductive jobs. Also, educational systems, through their conservative trend and their close ties with the existing social structure, may be conducive to the perpetuation of attitudes unfavourable to economic development. These unfavourable characteristics are visible in more than one of Latin America's existing educational systems.

The high economic value of an effective primary education for all children can be taken for granted. Such an education provides the individual with the minimum tools for taking part in the life of the modern economy as producer and consumer and for receiving vocational training, whether in school or at work. Even unskilled labour has a much higher level of productivity and adaptability in a country with universal literacy than in one where such labour is mainly illiterate.

The economic return from universal primary education, provided it is effective, is virtually incalculable, since it represents an upgrading of the whole population, and cannot be appraised solely in terms of different levels of income or the need for specific skills.

The word "effective" must be emphasized. As much of the primary education now provided in Latin America is ineffective, its aims and content will therefore have to be revised and a larger and better-planned allocation of resources secured in order to eliminate the waste represented

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by schooling that is too short and too poor in quality to provide the pupil with the minimum means of learning reading, writing and arithmetic, and at the same time of playing a fuller part in the nation's social and economic life.

From the economic standpoint, a country starting its development effort with a rudimentary school system may give the expansion of primary education too high a priority in relation to other levels of education; the Latin American countries, however, with one or two possible exceptions have already developed their educational systems to a point at which effective universal primary education of not less than six grades can be considered an economically desirable goal attainable within the next decade, without excessive diversion of resources from the intermediate and higher levels of education.

The problem of determining optimum allocations to education becomes even more complicated at the higher and specialized levels. Study is being devoted to various practical methods or criteria for the assessment and determination of such allocations. Three pertinent methods of research are briefly summarized here, and will be discussed in greater detail in several of the background papers presented at this Conference.

(a) Estimates can be made of needs for different types of skilled manpower and of the recruitment required to meet specified economic targets. They are arrived at by analysing the structure of the existing labour force by various categories of skills, and on the basis of projections of the requirements of the different economic activities, in accordance with over-all development plans or prospects. These estimates can be compared with the output of graduates at the various levels, in order to detect where deficiencies occur and plan for their elimination. The Soviet Union and other centrally-planned economies depend heavily on projections of the specialized manpower requirements of the different economic activities in formulating their educational programmes. Other countries consider that in an age in which production techniques are continually being revised and those in current use

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rapidly become out of date, adaptability may become more important than specialized training for particular jobs. Consequently, their estimates are based on this approach, and in drawing up their education plans they do not aim at very detailed specifications matched with the demand for manpower resulting from the needs of the economy.

(b) Economists are now trying to calculate the economic returns on investment in different types and levels of education. In accordance with a variety of technical criteria, they compare the income deriving from different occupations with the cost of training workers for the occupations in question, computing not only the costs to the individual involved, but also those borne by society as a whole. Estimates of this kind usually show a very high rate of return, and have been used to indicate the need for increased investment in education, especially at its higher levels. This approach has a number of limitations as a guide to planning. Most important, it cannot take into account the indirect economic returns from education that are reflected in the country's over-all level of living, as is the case with the diffusion of a spirit of research and technological innovation. Furthermore, the level of individual income is not always closely related to the contribution of education to national productivity, especially in non-industrial occupations. Thus, services as essential as primary teaching may be very poorly paid in relation to the educational level required.

(c) Lastly, the proportion of the national income that a country spends on education can be compared with that allocated by other countries. Such coefficients afford an idea, more or less approximate as the case may be, of whether a given country is lagging behind others with similar or dissimilar income levels as regards the attention it devotes to education. The share of education in total national investment is also frequently compared. From such international comparisons, due allowance being made for other social and educational factors peculiar to each of the individual countries concerned, certain conclusions of practical value can be drawn. Estimates of this type, however, are hampered by the intrinsic limitations of international comparability of national income and budgetary statistics.

3. Some aspects of the integration of an education programme

The present section deals with certain topics of great practical importance for the integration of educational programming and the programming of economic and social development. No attempt is made to suggest a solution for the problem, but it is felt that significant progress in integration should be achieved by improving the procedures adopted in the formulation of plans and by introducing methods of establishing objectives and estimating resources common to both types of planning. To this end, the establishment of targets for the educational services, on the basis of an outline classification, is discussed first, and a procedure for estimating the resources required in order to attain these targets is then proposed.

(a) Education and its integration in development planning

From the pragmatic standpoint of development programming, the functions of educational services can be grouped in two major categories. One of these is closely linked to direct economic requirements. The other satisfies general requirements relating to the economic, social and cultural aspects of community development. This distinction cannot be rigidly drawn, however. For example, general primary and secondary education falls within both categories; it provides the basic groundwork for subsequent specialization, while at the same time raising the intellectual and cultural level of the pupils.

This broad classification does not imply a differentiation between educational aims, still less does it presuppose that educational services are of value only as a factor of economic production. Its usefulness is considered to lie in its potential contribution to the smooth co-ordination of economic development programming and educational planning.

Admittedly, the functions directly linked to production - as reflected in income levels - exert a significant influence on the cultural level of a given country, and this level in its turn effects the capacity for development.

Between economic and educational development there must be coherence. The educational services must endow the country concerned with a fund of technical knowledge and a degree of cultural development conducive to the expansion of production and the improvement of the population's level of living. On the other hand, the resources which education requires in order to serve these ends must be incorporated in an over-all allocation system calculated to ensure maximum economic and social development.

The two basic aspects of the integration of economic and educational planning are thus brought into evidence: on the one hand, the establishment of specific educational targets; and, on the other, the quantification of the resources to be earmarked for education.^{32/} In the last analysis, these are but two different angles of one and the same problem, since educational objectives determine the resources needed and the amount of resources that can be guaranteed sets the limits within which those objectives can be established. It is convenient to discuss them separately, however, so that features peculiar to each aspect of the question can be analysed.

In accordance with the foregoing distinction, educational objectives can be classified in two groups: those relating to functions linked to the requirements of the economy, and those associated with functions whose purpose is to raise the cultural level of the population, irrespective of any connexion with the production process. The former are dictated by requirements deriving from the expansion of output and depend upon the technology and organization of production. The latter are closely bound up with the social policy adopted by the country concerned.

^{32/} Obviously, these considerations arise at any level of planning, both in relation to the major economic and social sectors and in dealing with each individual sector. For example, within the educational sector, the problem of the allocation of resources among the various educational objectives arises.

Let it be assumed that future production targets for the different sectors of the economy have already been assessed in quantitative terms; that an estimate of skilled manpower requirements for the attainment of those targets is available; and that, in addition, existing deficiencies in the latter field have been identified. Educational activities might be organized to meet the requirements in question and the programmes for each educational level might be drawn up on that basis. This would be the minimum demand on the educational services that the economic development process would make. Although there are many unsolved problems in connexion with the establishment of skilled manpower requirements for specific levels of production and different degrees of productive efficiency, these difficulties can be progressively bypassed as methods of preparing estimates are perfected. The development of such methods must be regarded as an essential part of modern economic planning techniques.^{33/}

(b) Objectives and formulation of an education plan

Economic development implies changes in the social field, in the behaviour patterns of the population, in attitudes to economic problems, etc. In some countries these changes will have to be of a radical character, and unless they are expedited development will be slowed up. Education must be regarded as a positive factor in such reforms. This not only implies an extension of the activities of the various levels of the educational services; it also has a bearing on the principles by which education is governed and the teaching methods adopted.

Educators and social programme-makers should define those principles and embody them in recommendations representing educational targets to be attained within specified time-limited. This task involves a social

^{33/} ECLA is currently working on the development of techniques for the evaluation of future skilled manpower requirements in the various sectors of the economy.

assessment that goes beyond the purely economic field, and should therefore be entrusted to the specialists and institutions responsible for social and particularly for educational development. It should be stressed that such targets cannot be as precisely defined as others relating to more concrete aspects of a given country's economic and social activity. Nevertheless, the greatest importance attaches to more thorough study and research aiming at least at a clear definition of long-term guiding principles for the educational services. These objectives will be incorporated in the economic and social development plan and allocated the financial and physical resources required for their attainment. Consequently, the process of integrating educational and economic planning, in relation to the social targets of education, becomes a problem of the allocation of limited resources. This problem must, of course, be studied and solved in the light of the over-all approach to the distribution of resources among all the economic and social activities of the country concerned.

The targets for the educational services once selected, the relevant programmes of action must be formulated. In other words, the educational services will have to develop a level of activity compatible with the predetermined targets and objectives. This level of activity may call for more resources than the country is in a position to supply; as a result, modifications will have to be introduced in the objectives, which might prove detrimental to the desired rate of development. In the integration of an education programme with a development programme, therefore, provision must be made for a process of adjustment of both programmes until a proper balance between targets and resources is achieved.

To ensure the optimum growth of each individual sector is clearly impossible. Were this feasible, planning would become meaningless, since it consists essentially in securing the most appropriate distribution of limited resources among alternative uses in several sectors. Hence, it is that very time a process of integration is attempted, the specialist

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who has drawn up a particular sectoral programme must witness some mutilation of his cherished schemes; in a word, a felling thus grows up that integration is synonymous with lost horizons. Be this as it may, in practice the shortage of resources and the pressure exerted on these limited funds by each economic and social sector will mean that every sector has to be content with less than it had hoped for. The formulation of an integrated plan aims at marshalling and rationalizing such pressures in the best interests of the economic and social development of the country as a whole. The need for an optimum distribution of limited resources among the various possible alternatives also becomes apparent within the educational sector itself.

The problem of the programming of education and each of its branches in such terms as to facilitate this expenditure process must therefore be faced.

In the following paragraphs it will be discussed in relation to primary education, on the understanding that the conclusions reached are equally applicable to other educational levels. Furthermore, estimates of resources will take into account only those of the public sector, in view of the preponderance of the State's contribution to the provision of this service.

Total annual State expenditure on primary education can be classified under three broad heads, as follows: expenditure corresponding to the provision of educational services in the year under consideration; expenditure designed to extend or improve educational facilities in future years; and expenditure on the maintenance and replacement of fixed capital. For the sake of simplicity the first may be termed operational expenditure, the second development expenditure, and the third expenditure on maintenance. Outstanding items in the first category are the salaries of teachers and of administrative personnel, costs of teaching material (e.g. the supply of books and exercise books), expenditure on social services rendered to teachers and pupils, etc. In the second category, the most important items are those deriving from school building programmes and the training of teachers. The third includes expenditure on the upkeep of school buildings and the maintenance of teaching equipment.

Study of a primary education budget will reveal that this expenditure can be associated with various activities or programmes carried out by the official institution concerned. There will be an educational administration programme in which administrative and operational expenditure may be concentrated, a school buildings programme, a teacher training programme, a branch of activity concerned with maintenance, etc. These components of total expenditure, and, consequently, the level at which the programmes concerned are developed, far from being independent of one another, are closely linked, so that the projection of total expenditure must take into account the existing inter-relationships. In other words, the targets established for primary education, which will be reflected in budgetary allocations, will be conditioned by the relations between the components of total expenditure.

The level of operational expenditure at the end of a given period will depend upon what is currently being done and on the expansion of educational facilities that is being carried out in the period in question. Thus, for example, for every unit of investment in the building of school premises in Colombia (development expenditure) it is estimated that the following year the amount spent on salaries of teachers and administrative personnel (operational expenditure) will increase by 0.45 units. Therefore, if a school building programme has been drawn up, it will be possible to estimate the operational expenditure required for bringing the resultant new premises into service. Similarly, if a teacher training programme has been formulated, future manning-table costs can be calculated. It is likewise possible to establish the cost of maintenance and replacement of fixed capital in terms of a programme for the expansion of educational facilities in the shape of school premises.

Hence future operational maintenance expenditure is conditioned both by its own present level and by the development expenditure projected.

/Development expenditure,

Development expenditure, in turn, can be broken down, at least theoretically, into expenditure to meet the normal growth of educational requirements and outlays intended to reduce the existing deficit within a specified time-limit. The latter is generally heavier than the former. In Colombia's case, for example, the school premises required to allow for the normal growth of the school population are estimated at approximately 2,000 classrooms a year, while the current deficit amounts to as much as 25,000 classrooms. Thus the expansion programme will be substantially dependent upon the time limit which is adopted for the reduction of this deficit, and which will therefore have a decisive influence on future operational and maintenance expenditure.

To sum up, total expenditure on primary education services in the future will be determined by:

- (1) the current level of operational expenditure;
- (2) the current level of expenditure on maintenance;
- (3) development expenditure needed to meet the normal growth of the school population;
- (4) development expenditure required to eliminate the deficit in capacity within a given time-limit.

Primary education targets are closely linked to this last type of expenditure, which is the main determinant of total expenditure on education. If it has to be reduced for want of resources, education targets can be rapidly estimated on the basis of an extension of the time-limit for reducing the deficit, and vive-versa. In this way the resources required for alternative objectives can be calculated.

The following were the findings of the preliminary study undertaken in the case of Colombia.

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If the aim were to eliminate the classroom deficit in five years as from 1961, expenditure on primary education would be 78 per cent higher in 1966 than in 1961. If, on the other hand, the process of eliminating the deficit were visualized as extending over the period 1961-70, educational expenditure in 1966 would exceed the 1961 figure by 50 per cent. In neither instance was allowance made for increases in teachers' salaries or changes in the available supply of teaching material.