

ECONOMIC SURVEY
OF
LATIN AMERICA
1954

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EXPLANATION OF SYMBOLS

The following symbols have been used throughout this *Survey*:

Two dots (..) indicate that data are not available or are not separately reported

A dash (—) indicates that the amount is nil or negligible

A minus sign (–300) indicates a deficit or a decrease

A full stop (.) is used for decimals

A comma (,) is employed to distinguish thousands and millions

A slash (/) indicates a crop year or fiscal year, e.g., 1953/54

Use of a hyphen (-) between dates representing years, e.g. 1948-53, normally signifies an annual average for the calendar years involved, including the beginning and end years. "To" between the years indicates the full period, e.g., 1948 to 1952 means 1948 to 1952, inclusive

References to "tons" indicate metric tons, and to "dollars" United States dollars, unless otherwise stated

Minor discrepancies in totals and percentages are due to rounding

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IMPORTANT NOTE

Within the near future, the secretariat plans to issue separately the statistical series relating to the movement of gross income in the Latin American countries. These figures and the methods used in establishing them will first be thoroughly revised. For this reason, Part II does not contain the statistical tables on income which have been presented on other occasions.

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Part I

LATIN AMERICA AS A WHOLE

Chapter I

THE GROWTH OF INCOME, INVESTMENT AND INFLATIONARY EXPANSION

INTRODUCTION

Previous reports have already drawn attention to the clear symptoms of weakness in the rate of Latin America's economic development. Despite some circumstantial evidence, throughout the year 1954 the factors unfavourable to the recovery of the high rates of growth attained by Latin America during the five years immediately after the Second World War, rather than slackening, have continued to operate. These adverse influences are of both external and internal origin and require objective emphasis and explanation.

Such is the aim of chapter I, which comprises three sections. The first reviews 1954 in the light of events in the immediate past. The countries of the region have been divided into three groups to obtain a better perspective of the consequences arising from the dissimilar behaviour of the terms of trade and of other circumstantial elements of the economy. The second section is devoted to analysing the forces which determine the rate of investment in Latin America. Experience over the last thirty years provides the basis for conclusions of undoubted value for economic development policy; they raise the question of how far countries in process of development can increase their investment coefficient through the spontaneous action of internal economic forces. This problem cannot be ignored, because, apart from its theoretical significance, it is of considerable practical interest. Moreover, the present discussion of this problem can represent only an initial prospection of a sphere which has been very little explored in Latin America. This first incursion into the subject may perhaps lead to further research and elucidation at a later date.

From another angle, consideration of the investment coefficient in Latin America necessarily involves a discussion of inflation and at once poses the inevitable question of its influence upon capital investment and therefore upon the intensity of economic growth. This topic merits much more thorough treatment than can be given to it in this report, where it can only be set out in a preliminary form.

The formulation of the problem has suggested that some concrete examples, which are significant enough to be instructive, should be examined. There is, perhaps, no more striking instance in Latin America of the inefficacy of inflation as a dynamic agent in raising real income than that of the Chilean economy, where the process has developed with such intensity that it rightly causes anxiety both in Chile and abroad. In such cases, no one will deny the vital need for an anti-inflationary policy; even so, fears usually exist that such a policy might have depressive effects upon economic activity and might lead to negative social repercussions.

This is not a possibility which can be arbitrarily dismissed as unimportant. Recent experience, firstly, in Argentina and later in Mexico, demonstrates that the risk is not a mere illusion. But it does not imply that depression

is the inevitable result of any policy aimed at attacking inflation; its prevention is in any case dependent upon a wise combination of internal and external measures. This is one of the topics dealt with in section III of this chapter, where these three specific examples are examined, with particular emphasis on the case of Chile.

I. ANALYSIS OF RECENT TRENDS IN GROSS INCOME AND INVESTMENT IN LATIN AMERICA

1. *The recent rate of growth*

As a beginning, some impression must be formed of the intensive effort towards economic growth which is taking place in Latin America. The most significant variable with which to evaluate this effort is undoubtedly the ratio between capital investment and available goods and services, in other words, the investment coefficient. This coefficient continued to decline during 1954, when it stood at 14.9 per cent in contrast to the peak level of 17.5 per cent in 1952. These are gross figures, which include the new investment of fixed capital as well as the renewal of existing capital.¹ If the depreciation allowances, which only maintain the capital stock, are excluded, the net investment coefficient scarcely reaches 8.7 per cent. Herein lies the relevance of this fact; a coefficient of this size barely permits the *per capita* gross product to expand by approximately 1.5 per cent annually, provided that the product-capital ratio of 1954 remains constant.²

An annual average growth rate of 1.5 per cent in the *per capita* gross product is by no means insignificant. From this point of view, Latin America is in a very favourable situation in comparison with other regions on the periphery of the world's economy. But it is no less true that such a rate increases, rather than reduces, the disparity between the average *per capita* gross product of Latin America and that of more advanced countries. In the United States, for example, the historic rate of growth of the *per capita* gross product has been, and continues to be, 2 per cent;³ it implies the possibility of doubling the standard of living every 32 years, while an annual rate of 1.5 per cent would lengthen the period required to 47 years.

¹ For lack of data, circulating capital could not be included. In this *Survey*, capital formation continues to represent fixed capital alone.

² National income statistics have had to be adjusted to obtain greater uniformity. The figures for 1953 and 1954 have, in general, been estimated on the basis of partial or fragmentary data which only cover part of the year; consequently, these are preliminary approximations and must be considered subject to correction, which, in some cases, may make a substantial difference. Whatever inaccuracies may appear in the figures for these years are therefore the responsibility of the secretariat.

³ The cumulative rate of growth between the periods 1869-73 and 1949-53. See S. Kuznets, quoted in *Economic Progress and Economic Change*, Solomon Fabricant (National Bureau of Economic Research, Inc., New York, May 1954), p. 4.

Nonetheless, there is no reason to believe that the development of the Latin American countries must proceed at this historic rate of growth, or for that matter that it should follow the same evolutionary pattern as that of countries which are more advanced today. Excluding other considerations, the long-term rate of growth in more highly-developed countries has been mainly determined by the gradual evolution of productive techniques and the continual process of technological innovations, while countries at present in course of development have at their disposal the enormous wealth of modern techniques already accumu-

lated. Even if the assimilation of such techniques gives rise to serious problems, it also suggests the possibility of attaining a much more rapid growth than is warranted by the historic rate, a fact which has been illustrated in a number of cases. In no other way will it be possible to achieve that progressive reduction of the disparity in incomes between the center and the periphery of the world economy, which is one of the fundamental objectives of the United Nations.

To facilitate examination of the recent growth of Latin America, two tables have been prepared embodying the

Table 1. Latin America: Aggregate growth, 1950-54

(Millions of dollars) ^a

Years	Popu- lation (millions)	Gross product	Available goods and services				Capital stock	Product per unit of capital	
			Total	Consumption	Investment	Percentages of total			
						Consumption			Investment
I. ANNUAL FIGURES									
1. Total Latin America									
1950.....	155.2	37,710	36,480	30,680	5,800	84.1	15.9	83,830	0.45
1951.....	158.6	39,780	40,050	33,380	6,670	83.3	16.7	87,940	0.45
1952.....	162.5	40,610	40,630	33,540	7,090	82.5	17.5	92,460	0.44
1953.....	166.7	41,340	40,130	33,640	6,490	83.8	16.2	96,430	0.43
1954.....	170.7	43,570	43,260	36,830	6,430	85.1	14.9	100,260	0.43
2. Countries exporting coffee and cacao ^b									
1950.....	78.5	14,580	14,280	12,200	2,080	85.4	14.6	34,880	0.42
1951.....	80.3	15,290	15,490	12,970	2,520	83.8	16.2	36,400	0.42
1952.....	82.3	16,210	16,560	13,680	2,880	82.6	17.4	38,190	0.42
1953.....	84.3	16,780	16,590	13,890	2,700	83.7	16.3	39,720	0.42
1954.....	86.2	18,230	18,720	16,170	2,550	86.4	13.6	40,880	0.45
3. Venezuela									
1950.....	5.0	2,730	2,300	1,720	580	74.8	25.2	3,420	0.80
1951.....	5.1	2,910	2,340	1,660	680	71.0	29.0	3,900	0.75
1952.....	5.3	3,300	2,690	1,820	870	67.8	32.2	4,460	0.74
1953.....	5.4	3,380	2,790	1,970	820	70.5	29.5	5,190	0.65
1954.....	5.6	3,600	3,010	2,180	830	72.5	27.5	5,940	0.61
4. Rest of Latin America									
1950.....	71.7	20,400	19,900	16,760	3,140	84.2	15.8	45,530	0.45
1951.....	73.2	21,580	22,220	18,680	3,480	84.3	15.7	47,640	0.45
1952.....	74.9	21,100	21,380	18,040	3,340	84.4	15.6	49,810	0.42
1953.....	77.0	21,180	20,740	17,780	2,970	86.1	13.9	51,520	0.41
1954.....	78.9	21,740	21,540	18,490	3,050	85.8	14.2	53,440	0.41
II. ANNUAL GROWTH RATE									
1. Total Latin America									
1951/54....	2.5	3.1	2.6	3.3	-1.2			4.5	-1.3
1953/54....	2.4	5.3	7.8	9.5	-1.0			4.0	1.4
2. Countries exporting coffee and cacao ^b									
1951/54....	2.4	6.0	6.5	7.6	0.5			4.0	2.0
1953/54....	2.3	8.6	12.8	16.4	-5.9			2.9	5.4
3. Venezuela									
1951/54....	3.2	7.3	8.8	9.6	6.9			15.1	-7.2
1953/54....	3.7	6.4	7.6	10.7	0.2			14.5	-7.6
4. Rest of Latin America									
1951/54....	2.5	0.2	-1.0	-0.3	-4.5			3.9	-3.6
1953/54....	2.5	2.7	3.8	4.0	2.9			3.7	-1.0

Sources and methods: The figures were calculated by the Economic Commission for Latin America, on the basis of official statistics. For a fuller description of methodology, see the *Economic Survey of Latin America, 1951-52*, general note at the end of chapter I.

General note: In all the tables of this chapter, figures for 1953 and 1954 are preliminary estimates.

^a At 1950 prices.

^b Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua.

more significant statistics which are regularly presented in the annual surveys. The first of these (table 1), refers to aggregative data, while the second (table 2) contains *per capita* statistics; in addition, both tables present the average annual rates of growth of the different variables over the last three years.

Table 2. Latin America: *per capita* growth, 1950-54
(Dollars)^a

Years	Gross product	Available goods and services			Exist- ing capital
		Total	Consump- tion	Invest- ment	
I. ANNUAL FIGURES					
1. Total Latin America					
1950.....	243	235	198	37	540
1951.....	251	252	210	42	554
1952.....	250	250	206	44	569
1953.....	248	241	202	39	578
1954.....	255	253	215	38	587
2. Countries exporting coffee and cacao ^b					
1950.....	186	182	156	26	444
1951.....	190	193	162	31	453
1952.....	197	201	166	35	464
1953.....	199	197	165	32	471
1954.....	212	217	187	30	474
3. Venezuela					
1950.....	549	463	346	117	685
1951.....	567	455	323	132	765
1952.....	625	508	344	164	842
1953.....	622	514	362	152	961
1954.....	642	536	389	147	1,061
4. Rest of Latin America					
1950.....	284	278	234	44	635
1951.....	295	303	255	48	651
1952.....	282	285	241	44	635
1953.....	275	269	231	38	669
1954.....	276	273	234	39	677
II. ANNUAL GROWTH RATE					
1. Total Latin America					
1951/54.....	0.6	0.1	0.8	-3.4	1.9
1953/54.....	2.9	5.0	6.4	-2.6	1.5
2. Countries exporting coffee and cacao ^b					
1951/54.....	3.6	4.0	4.9	-1.1	1.5
1953/54.....	6.5	10.2	13.3	-6.7	0.6
3. Venezuela					
1951/54.....	4.2	5.6	6.4	3.7	11.5
1953/54.....	3.2	4.3	7.5	-3.4	10.4
4. Rest of Latin America					
1951/54.....	2.2	-3.5	-2.9	-7.2	1.3
1953/54.....	0.4	1.5	1.3	2.6	1.2

Sources and methods: The figures are based on those of table 1.

^a At 1950 prices.

^b Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua.

Although investment is declining in Latin America and the volume in 1954 would only suffice to achieve a relatively modest growth in *per capita* income, the year recorded one of the highest rates of increase in *per capita*

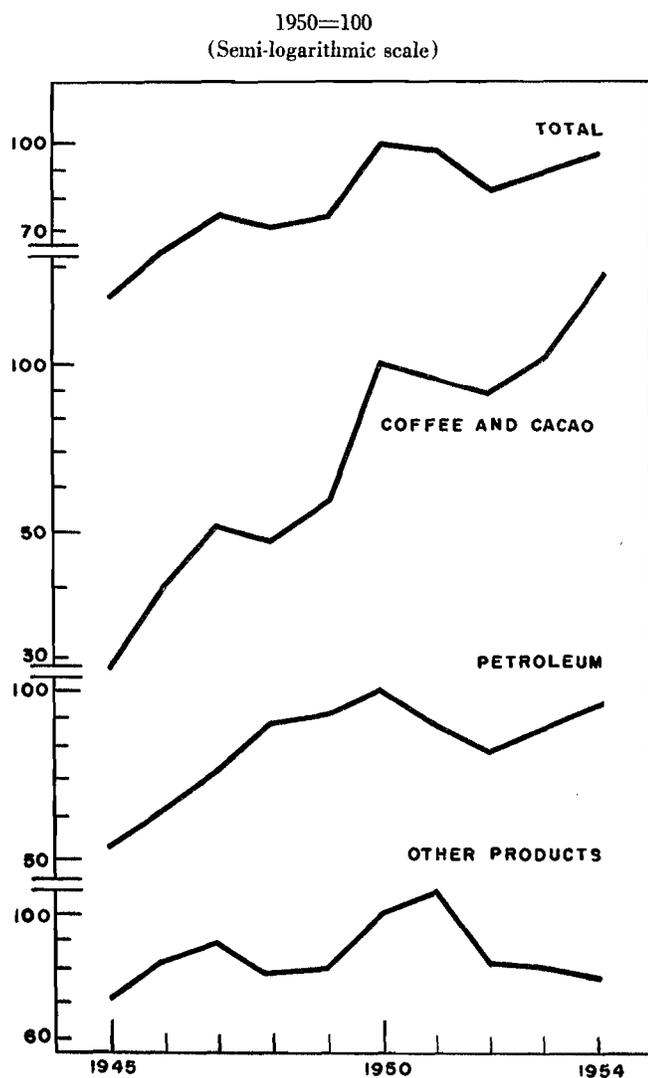
goods and services, which, in fact, rose by 5 per cent in relation to 1953. But no comfortable illusions should be entertained. This situation is the outcome of short-term factors, since it only appears in those countries where the terms of trade have improved during recent years. In countries producing coffee and cacao, the goods and services available *per capita* rose by 10 per cent in 1954; although it is true that this rate offset the temporary decline of the previous year, the average growth of 4 per cent in goods and services available *per capita* during the last three years is of exceptional magnitude.⁴ Similarly, in Venezuela, higher petroleum prices are the principal explanation of the 4.3 per cent increase in *per capita* goods and services during 1954. In contrast, after two unfavourable years, the increment in 1954 was 1.5 per cent for all the other countries of Latin America, so that a net decline of 3.5 per cent took place in goods and services available *per capita* during 1952-54. It is thus apparent that to combine the countries of Latin America in a single group would have given an inaccurate impression of what is actually taking place. The coffee and cacao producing countries on the one hand, and Venezuela on the other, have hitherto been able to benefit from the powerful and continuing impulse to their development caused by external factors. But the remaining Latin American countries have, since 1951, shown those clear symptoms of weakness to which an earlier reference has been made. In any case, the countries in the first group are not immune from such maladjustments. The recent fall in coffee prices has already caused them to lose all the additional earnings from foreign sources which had so strongly contributed to raising the rate of their economic growth during 1954.

These statements do not imply that the variations in the terms of trade were the only short-term factors involved. But their influence was undoubtedly of paramount importance and some impression should be formed of the way in which the terms of trade have evolved if a faithful interpretation of Latin America's recent growth is to be obtained. Chart I has been prepared with this aim; it represents the relation of export prices for coffee and cacao, for petroleum and for other important products, to Latin America's import prices during the last ten years. (See also table 3.) The clear contrast should be noted between the substantial rise in the curve representing the terms of trade for coffee and cacao and the behaviour of the other products. The terms of trade for the latter, which moved up until 1951 and subsequently declined, show that the 1954 index is very close to the point of departure in 1945. During the last two years, the relative price of petroleum has recovered virtually all the loss registered in previous years and has almost returned to the peak it had reached in 1950.

Given this dissimilar evolution of the terms of trade, the comments which appear in the following sections will be adjusted to the three groups previously suggested.

⁴ In 1954, most of the increase in goods and services available *per capita* in the countries producing coffee and cacao arose from an expansion in Brazil's imports of more or less 20 per cent above the abnormally low level in 1953; exports from Brazil remained the same, in contrast to the sustained increase of imports (and exports) which took place in the other countries of that group during the last few years. In addition, it should be noted that Brazil's economic development has progressed since 1951 despite the slackening capacity to import, while the expansion in the capacity to import of the other coffee and cacao producers was the dynamic factor influencing their growth.

Chart I
LATIN AMERICA: INDICES OF THE TERMS
OF TRADE OF COFFEE AND CACAO,
PETROLEUM AND OTHER PRODUCTS



(a) *Coffee and cacao producing countries.*⁵ It has been seen that for this group of countries, goods and services available *per capita* rose by 4 per cent during the last three years; but the growth of the gross product, although substantial, was slightly lower (3.6 per cent). The difference between these two rates arises mainly from the improvement in the terms of trade for coffee and cacao, which may be estimated at some 280 million dollars (at 1950 prices) during 1952-54.

But these phenomena are not entirely the result of the direct effect of the terms of trade. The growth rate of 3.6 per cent for the *per capita* gross product cannot be explained by capital accumulation alone. Indeed, the capital per inhabitant rose at an annual average rate of 1.5 per cent, or less intensively than the *per capita* gross product.

⁵ They comprise Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua. Throughout the following analysis, tables 1 and 2 should be consulted.

Table 3. Latin America: Indices of the terms of trade
(1950=100)

Year	Total (A)	Coffee and cacao (B)	Petroleum (C)	Other products (D)
1945	53.9	28.6	52.9	70.9
1946	65.2	40.6	61.3	83.9
1947	75.1	52.1	72.5	89.4
1948	72.0	48.9	88.3	78.6
1949	74.6	56.6	91.5	79.7
1950	100.0	100.0	100.0	100.0
1951	98.5	94.7	87.2	109.6
1952	83.1	89.3	78.9	81.6
1953	89.1	104.5	86.2	80.6
1954	96.9	142.3	95.1	77.0

Sources and methods: Figures calculated by the Economic Commission for Latin America.

But, in contrast, the product per unit of capital grew, rising by 6 per cent during these three years.

It is thus evident that a series of factors combined to determine the exceptional rate of growth in *per capita* goods and services during 1954. These factors were: the direct effects of the improvement in the terms of trade; a relatively satisfactory rate of capital formation, undoubtedly influenced by the terms of trade; and a sizeable increase in the product per unit of capital upon which the terms of trade probably exercised an indirect influence, as will be seen at a later stage.

(b) *Other countries.* A diagnosis of the other countries, excluding Venezuela, is very different. During the last three years, the terms of trade were adverse and the product per unit of capital declined. Thus, goods and services available *per capita* decreased sharply, by 6.3 per cent between 1951 and 1952, and by 5.9 per cent between 1952 and 1953. A slight recovery of 1.5 per cent in 1953-54 subsequently occurred. During 1952-54, therefore, an average annual reduction of 3.5 per cent took place in goods and services available *per capita*, which was greater than the annual rate of 2.2 per cent at which the gross product declined. The difference between these two rates reflects the direct effect of the deterioration in the terms of trade.

The substantial fall in the gross product occurred even though the capital stock increased by 1.3 per cent annually during these three years. But while capital thus expanded, its product per unit dropped even further, declining from 0.45 in 1951 to 0.41 in 1954, a development which is discussed later.

(c) *Venezuela.* The reasons for considering this country separately are obvious. Although the increase of 4.3 per cent in goods and services available *per capita* between 1953 and 1954 was less than half the corresponding increment of the coffee and cacao producers, Venezuela's growth trend is the strongest in Latin America. During the last ten years, goods and services available *per capita* have risen by 3.7 per cent annually, compared with an increase of 2.7 per cent for the coffee and cacao producers and 2.3 per cent for all other countries. Greater exports of petroleum and the favourable terms of trade thus constitute the dynamic elements which caused these results, both directly and indirectly, through the rapid pace of investment which is characteristic of Venezuela. During the last three years, the capital stock has increased at an average of 11.5 per cent annually, although its influence upon the gross product was less intense because of the decline in the product

per unit of capital. In Venezuela, however, this decline may have arisen from causes distinct from those which provoked a similar downward movement elsewhere.

2. The decline of the investment coefficient

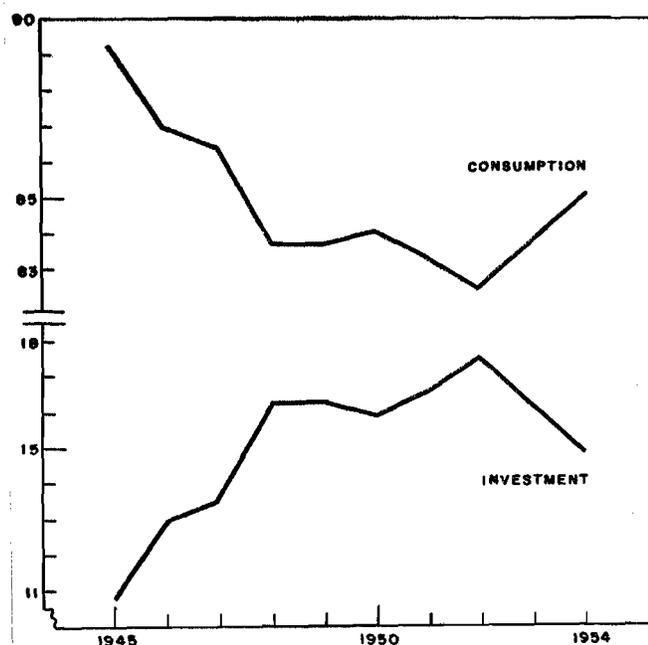
Previous studies have demonstrated that an improvement in the terms of trade normally produces two types of favourable effects upon Latin America's growth. They represent the direct effect, when available goods and services increase more than the gross product, and the indirect effects, which fall into two categories. Firstly, the improvement stimulates investment and, secondly, it leads towards a better utilization of existing capital, in other words, an increase in the product per unit of capital. Nevertheless, these indirect effects may be offset by an absolute or relative increase in consumption. This is apparently what happened to investment during recent years, in the case of both the coffee and cacao producers and Venezuela.

It should be recalled that the investment coefficient for the whole of Latin America had risen from 11.0 to 17.6 per cent between 1945 and 1952, when the terms of trade had improved. There is no need at this stage to anticipate the explanation that is given later.⁶ It suffices to note that after 1952 the investment coefficient tended to decline in the case of those countries where the terms of trade improved, in the group where they followed a downward course and, finally, in Venezuela, where the terms of trade, after a deterioration, recovered the ground lost.

Chart II

LATIN AMERICA: SHARE OF CONSUMPTION AND INVESTMENT IN AVAILABLE GOODS AND SERVICES

(Natural scale)



⁶ See section II of this chapter, page 25 *et seq.*

What explanation can be given for the tendency of the investment coefficient to decline in countries where the terms of trade improved? It is clear that if this coefficient drops, the share of consumption in available goods and services must rise. This situation appears to have been general throughout Latin America during the last two years, and, to appreciate its full significance, the changes in the shares of consumption and investment in aggregate available goods and services during the last ten years should be examined. (See chart II and table 4.) Until 1952, the share of investment tended to rise while that of consumption declined, but after that year a reaction took place and consumption increased its proportion in total available goods and services.⁷

Nevertheless, erroneous inferences must be avoided. If the share of consumption has risen recently, there is no implication that it has grown in absolute terms. An absolute increase in consumption has, in fact, occurred in the countries producing coffee and cacao, and in Venezuela. But in the remaining countries, the share of consumption in available goods and services expanded even when such goods and services declined. In other words, in the third or remaining group of countries, consumption rose in relative, but not in absolute terms. (See again tables 1 and 2.)

3. The product per unit of capital

This represents one of the least explored aspects of the dynamics of Latin America's growth, despite its extreme importance in the theory and practice of economic development. The somewhat approximate calculations of the capital stock, as well as statistics for the gross product, at least allow a first general estimate to be made of the course followed by the ratio between these two variables, namely, the product per unit of capital. But the composition of the capital, its technical and economic characteristics, and the circumstantial or adventitious factors which affected its product, must be more thoroughly understood if a better explanation of its changes is to be provided. Consequently, as long as no further progress in such research is made, conjectures must be made with caution.

However, one fact appears to be evident; the product per unit of capital for the whole of Latin America increased during the Second World War and later began to decline for reasons which have been explained in previous studies.⁸ Nevertheless, in the coffee and cacao producing countries, this declining trend appears to have been offset by other forces, which, when they prevailed, caused the product-capital ratio to rise accordingly. What are these forces? Why have they not operated in other countries where the product per unit of capital has continued to fall? The first reason involves the different course followed by the terms of trade. In this group of countries, the improvement in coffee and cacao prices caused the value of exports to rise sharply; these higher earnings from external sources had an expansive influence upon domestic

⁷ It should be noted that this represents a simple approximation, because investment statistics do not include stocks, an increase in which might magnify consumption figures unduly. This is what occurred in recent years, mainly for stocks of coffee, cotton, sugar and copper in some countries. But it has been verified that the size of the increase is very small in relation to aggregate consumption.

⁸ See part I of the *Economic Survey of Latin America, 1951-52* (document E/CN.12/291/Rev.2), United Nations publication, Sales No.: 1953.II.G.3.

Table 4. Latin America: Composition of available goods and services
(Millions of dollars) ^a

Years	Available goods and services							Total consumption	Total investment
	Total	Consumption			Investment			(percentages of total available goods and services)	
		Total	Private	Public	Total	Private	Public		
1945...	27,859	24,856	21,602	3,254	3,003	1,803	1,200	89.2	10.8
1946...	30,607	26,643	22,924	3,719	3,964	2,562	1,402	87.0	13.0
1947...	34,829	30,083	26,528	3,555	4,746	3,522	1,224	86.4	13.6
1948...	34,832	29,171	25,371	3,800	5,661	3,703	1,958	83.7	16.3
1949...	35,672	29,871	25,572	4,299	5,801	3,825	1,976	83.7	16.3
1950...	36,480	30,680	25,878	4,829	5,800	3,680	2,120	84.1	15.9
1951...	40,050	33,380	28,120	5,260	6,670	4,340	2,330	83.3	16.7
1952...	40,630	33,540	27,800	5,740	7,090	4,760	2,330	82.5	17.5
1953...	40,130	33,640	27,220	6,420	6,490	4,260	2,230	83.8	16.2
1954...	43,260	36,830	30,410	6,420	6,430	4,140	2,290	85.1	14.9

Sources and methods: Figures calculated by the Economic Commission for Latin America, on basis of official statistics.

^a At 1950 prices.

demand and stimulated a more intensive use of productive capacity, with a consequent rise in the product per unit of capital.⁹

Once this interpretation is accepted, a further question arises: why has the product-capital ratio also declined in Venezuela, where the terms of trade continue to be favourable? Herein lies another example of the complexity of the problem, which in practice cannot be explained unilaterally. In Venezuela, changes in the composition of capital have probably had more influence than the terms of trade; in other words, abundant resources have allowed investments to be made with a relatively low product per unit of capital. In addition, during periods when large investments are being made, this wealth of resources often enables productive capacity to be increased, as an insurance for the future, to an extent which is quite beyond countries with lower investment possibilities.

Table 5. Latin America: Imports, exports and the capacity to import
(Percentages of gross income)

Years	Imports (A)	Exports (B)	Capacity to import (C)
1945.....	10.1	22.5	14.6
1946.....	13.5	21.4	15.2
1947.....	17.6	20.8	17.8
1948.....	16.5	20.4	15.0
1949.....	14.9	18.2	15.4
1950.....	15.9	19.1	16.9
1951.....	18.8	18.0	18.5
1952.....	17.2	17.1	17.3
1953.....	16.2	19.1	17.1
1954.....	16.6	17.0	16.5

Sources and methods: Figures calculated by the Economic Commission for Latin America.

Col. (A): Imports of goods and services at constant 1950 prices.

Col. (B): Exports of goods and services at constant 1950 prices.

Col. (C): Includes exports of goods and services, effect of the terms of trade with respect to 1950, and the net inflow of foreign capital.

⁹ The higher income thus achieved has inevitably tended to raise imports; it could not have taken place without an expansion of the capacity to import, which was largely caused by an improvement in the relative prices of coffee and cacao.

4. The capacity to import and the import coefficient

Under any circumstances, an analysis of the capacity to import is vitally important. Unfortunately, calculations by groups of countries only go back to 1950 and omit the highly significant five-year period immediately after the Second World War. This analysis must therefore embrace the Latin American countries as a whole.

Section II will show that the capacity to import in relation to gross income has grown substantially since 1945, but has tended to decline during the last three years. (See

Chart III
LATIN AMERICA: IMPORTS, EXPORTS AND
CAPACITY TO IMPORT
Percentage of gross income
(Natural scale)

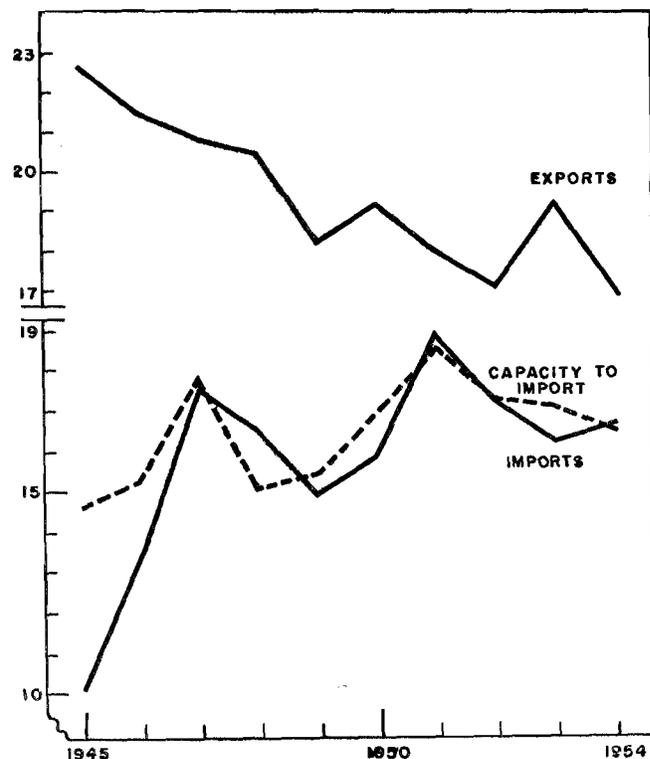


chart III and table 5.) Nevertheless, this downturn in itself hardly suffices to account for the revival of the external tensions which characterize Latin America's development. Furthermore, this phenomenon has been apparent both in the coffee and cacao producers and in those countries where the terms of trade were unfavourable. Both groups—although they have such different rates of growth—show that development tends to surpass the limits set by the capacity to import. Therefore, if growth is to continue, measures must be taken to raise this capacity and also to modify the composition of imports in accordance with structural transformations in the internal economy. A brief examination of the import coefficient during the last few years will provide a better understanding of this problem. (See tables 6 and 7.)

The high import coefficient for investments of fixed capital should be noted. At this point, later statements¹⁰ on the limitations of an inflationary expansion policy of real

income may well be anticipated. If savings do rise, their conversion into capital goods is very largely restricted by the capacity to import. The proportion of the import coefficient in aggregate consumer goods is far smaller, but since the share of consumer goods in gross income is several times larger than that of capital goods, a higher demand for them normally exerts a greater influence upon external tensions than that of capital goods. Within aggregate consumer goods, two opposing trends appear; while the import coefficient of finished consumer goods is tending to decline, conversely, a pronounced increase is apparent for fuels, which thus nullifies the consequences of the first trend. This fact is one of the indications of the acute energy problem in the larger countries of the region, where, among other obstacles, development is seriously restricted by the energy shortage. The import coefficient of raw materials shows no definite tendency either to rise or to fall, within its normal annual fluctuations. As a result of all these movements, the aggregate import coefficient in

Table 6. Latin America: External payments capacity and capacity to import

(Millions of dollars) ^a

Years	Exports (A)	Effect of the terms of trade with respect to 1950 (B)	Inflow of long- and short-term foreign capital (C)	Total external payments capacity (D)	Outflow of long- and short-term capital (E)	Remittances of profits and interest (F)	Capacity to import			Imports (J)
							(absolute figures) (G)	(percentage of gross income) (H)	(percentage of total imports) (I)	
1950.....	7,197	—	577	7,774	626	791	6,357	16.9	106.4	5,977
1951.....	7,256	232	1,106	8,594	314	867	7,473	18.7	99.3	7,522
1952.....	6,924	-350	1,444	8,018	298	712	7,008	17.4	101.0	6,942
1953.....	7,872	-178	968	8,662	907	710	7,045	17.1	105.8	6,660
1954.....	7,581	320	504	8,405	249	779	7,377	16.8	101.5	7,269

Sources and methods: Figures calculated by the Economic Commission for Latin America, on the basis of information published by the International Monetary Fund in *Balance of Payments Yearbook*.

The figures in Cols. (C), (E) and (F) were deflated by the unit value index of Latin American imports.

Col. (D): Col. (A) plus Col. (B) plus Col. (C).

Col. (G): Col. (D) minus Col. (E) plus Col. (F).

Table 7. Latin America: Relative importance of the components of imports with respect to available goods and services; and capacity to import in relation to these goods and services

Years	Partial coefficients				Total imports (percentages of total available goods and services)	Capacity to import
	Capital goods	Raw materials	Fuels	Finished consumer goods		
	(Percentages of investment)	(percentages of consumption)				
1950.....	38.0	4.4	1.6	6.4	16.4	17.4
1951.....	44.6	4.9	1.8	7.0	18.9	18.2
1952.....	40.1	4.0	1.9	6.4	17.1	17.5
1953.....	39.6	4.2	2.0	6.0	16.6	17.9
1954.....	41.5	4.5	2.1	5.7	16.8	17.1

Sources and methods: Figures calculated by the Economic Commission for Latin America.

combined available goods and services has fluctuated around a stable level during the last few years.

This relatively constant level of the import coefficient, at its peak since the great world depression, indicates that Latin America's growth is once again being hindered by obstacles of an external nature, the importance of which needs no emphasis at this stage.

5. The balance of payments and temporary economic recession in some countries

It was previously stated that the reappearance of external disequilibria has affected the coffee and cacao producers as well as other countries. Without prejudicing the detailed examination which appears later in this *Survey*,¹¹ a brief initial review is given here with the help of the figures in table 8.

¹⁰ See section II of this chapter.

¹¹ See chapter II.

Table 8. Latin America: Annual *per capita* rates of growth in selected countries

Countries	1953-54			1954-54		
	Gross product	Available goods and services	Capital stock	Gross product	Available goods and services	Capital stock
Colombia.....	6.6	11.6	2.6	5.7	8.0	2.1
Brazil.....	6.3	10.8	1.3	3.1	3.1	2.0
Argentina.....	0.4	1.4	1.2	-3.6	-5.7	1.0
Mexico.....	4.3	2.8	2.1	-0.9	-2.1	2.4
Peru.....	0.8	-7.8	...	3.6	-2.7	...
Cuba.....	-4.5	12.3	0.8	-7.2	-7.9	0.0

Sources and methods: To obtain uniformity, statistics from official sources were adjusted by the Economic Commission for Latin America. All figures are provisional.

Colombia was the last country to experience this external imbalance, although the characteristics were mild; higher income exerted a pressure upon imports, while previous measures for liberalizing trade had to be replaced by others of an opposite nature aimed at correcting the disequilibrium. In this case, investment did not follow the substantial improvement in the terms of trade during 1954; on the contrary, the investment coefficient, although relatively high in 1954 (17.9 per cent), was lower than that of 1953 (20.0 per cent). In reality, this unexpected improvement in the terms of trade found Colombia without investment plans that could rapidly absorb the new resources, and which have proved to be of short duration only.

The difficulties in Brazil had arisen previously and were much more acute. In 1952-53, the external deficit obliged strict measures to be adopted to curb imports, which had exceeded the capacity to import and had led to an accumulation of heavy arrears abroad. These restrictive measures adversely influenced domestic activity during the two years concerned, but statistics for 1954 show that a pronounced recovery has taken place. A major role in the recovery was played by the greater flexibility introduced into the exchange system, and by the establishment of a minimum wage, which—together with the general rise in wages—improved the real earnings of the lower-income groups which had earlier been seriously affected by the inflationary rise in prices.

In considering these two countries, it should be noted that the favourable effects of the terms of trade have not been equally intensive for both of them. In Colombia, the influence of coffee exports upon the whole economy is more pronounced. This fact in part explains why investment and the increase in both the gross product and available goods and services were stronger there than in Brazil.

The other countries have also been subjected to these external disequilibria and, in certain cases, to such an extent that measures have had to be taken to act as a brake upon monetary expansion. As often happens, these measures have caused some temporary contraction, Argentina, Mexico and Peru being mainly concerned. Argentina and Mexico have already overcome this situation, and the 1954 statistics indicate some recovery.¹² In Argentina, the re-

¹² The recovery in Argentina during 1954 was only apparent in the internal sector, because the capacity to import did not rise above the level of 1953. Something of the same sort occurred in Brazil. As a result, greater imports, which encouraged an expansion of industrial production—thanks to a reader availability of raw materials and other imported products which had been in short supply—were financed through a deterioration in the trade balance. It will be seen in chapter II, that Argentina and Brazil accounted for some 75 per cent of the aggregate decline in Latin America's trade balance during 1954.

cession was first caused by factors which have already been explained in previous reports. In this *Survey*, reference will be made to the new policy of expansion which brought about the recovery.¹³ Peru was the last country to feel the disequilibrium, and attacked it by measures to restrict imports. Despite the imbalance, the gross product has once again begun to grow after the fall in 1953, but at a slower rate than in previous years because available goods and services were weakened by the deterioration in the terms of trade.

Cuba has also undergone an appreciable contraction during the last two years, not because of readjustment measures, but on account of the unfavourable sugar situation, which, together with other factors, raises special development problems for this country.

These indications of external disequilibrium are by no means isolated in character. They are symptoms of more profound phenomena which should be examined in greater detail, and for which the following pages partly aim at finding an explanation.

II. THE STIMULUS OF DEMAND, INVESTMENT AND ACCELERATION OF THE RATE OF GROWTH

Section I of this chapter did not state whether the terms of trade can exert any marked influence upon the investment coefficient. This question deserves to be examined closely because its theoretical interest is as great as its importance for a development policy. It has two aspects, the first relating to the behaviour of the coefficient over the short term, and the second dealing with changes in the rate of investment during longer periods. As regards the first, the data for the last thirty years reveal that, for Latin America as a whole, the investment coefficient follows a course parallel to that of the terms of trade, though there are other influences which might preclude this in some of the countries of the region.

The vital issue does not concern the short-term movements of these two variables but the long-term behaviour of the investment coefficient and the forces which determine it. In the absence of external incentives for development, or of a planned policy to provide them, do internal forces exist which are capable of raising the coefficient and the growth rate spontaneously? The answer is in the negative because, to raise investment, an accelerated expansion of demand must previously be obtained, and this cannot be spontaneously generated by the interplay of domestic economic forces. In the past, the rise in demand

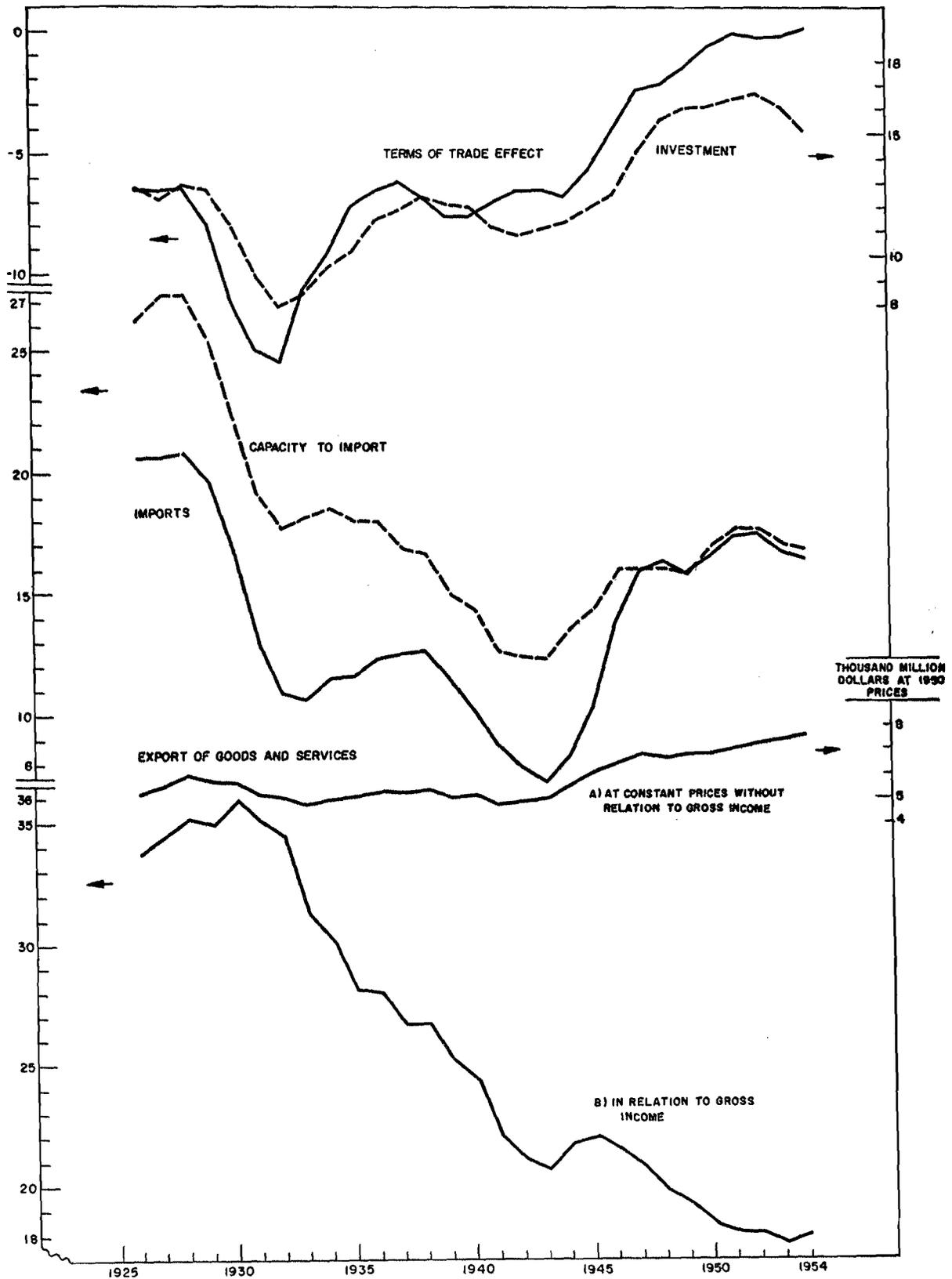
¹³ See the end of section III of this chapter. In addition, the situation in Mexico and the recent strengthening of its monetary position are discussed.

Chart IV
LATIN AMERICA: EFFECT OF THE TERMS OF TRADE AND OF EXPORTS
UPON THE CAPACITY TO IMPORT AND THE INVESTMENT COEFFICIENT

Moving three-year averages

Percentage of gross income

(Natural scale)



was brought about by external factors which led to a pronounced development of Latin America's exports. But this dynamic force has weakened. Consequently, a revival of the previous expansive effects of exports upon the growth of internal demand, and therefore upon the strength of the incentives to economic development, must be the object of a deliberate policy aimed at raising demand. A theoretical digression at this point may clarify a subject of considerable practical interest. It will analyse how an increment in the productive factors employed in import substitution activities tends to accelerate the growth rate of domestic demand in the same way as an expansion in the export sector.

Such is the dynamic effect of an import substitution policy, which, far from being incompatible with the effort to encourage exports, is complementary to it. But an acceleration of the growth rate of demand is insufficient to increase the investment coefficient; clearly, the savings coefficient must also be raised. Can it be achieved by inflation? This is the final point discussed in this section. It may be argued that inflation can raise the savings and investment coefficients, but the practical obstacles and economic disturbance it causes are too great to allow much confidence to be placed in its dynamic influence. Once this conclusion has been reached, the way lies open for the analysis in section III of the specific examples of inflation¹⁴ mentioned at the outset of this chapter.

A. THE INVESTMENT COEFFICIENT

1. *The terms of trade and the investment coefficient*

This chapter's initial survey of the recent fluctuations of investment in Latin America and the influence of the terms of trade, might be considered fortuitous if the conclusions were based on a relatively short period of years. An analysis will now be made covering a much longer period, which offers more reliable evidence of the remarkable impact of the terms of trade upon the evolution of the region's economy. It must be repeated that the terms of trade are in reality the reflex of a series of external forces, the variations of which are of vital importance for the Latin American countries. The same forces which bring about the improvement or the deterioration of the terms of trade also cause the export volume to increase or decrease, although to a much smaller degree, so that the influence of the former upon the rate of investment predominates.

Proof of this statement will follow. The period under review covers the last thirty years (1925-54) and is sufficiently long—and certainly eventful enough—for the inferences drawn from it to be attributed merely to random costs.

Chart IV has been prepared so that these phenomena can be clearly grasped. The curves therein have been smoothed out with three-year moving averages. (See also table 9.) These curves cover Latin America as a whole, although it would have been interesting to divide the countries into groups, in the same way as in section I, so as to identify the effects of the specific factors influencing them. But such grouping would have required special studies demanding long and minute research, and the purpose of this chapter can be accomplished by the over-all analysis, which is in itself significant enough.

¹⁴ See Introduction, pp.

The first curve in chart IV represents the terms of trade effect and the second the investment coefficient, both expressed as a ratio of gross income. The close analogy being. During the world depression both follow a downward trend; they later rise until their recovery is interrupted before the Second World War. During the war, investment tends to decline for obvious reasons, despite a slight upturn in the terms of trade. After 1945, the two curves reach the peak since the depression of the 'thirties. During the last few years, however, while the terms of trade remain very high—chiefly owing to the rise in coffee prices—and exports also continue at a comparatively high level, the beginning of the downturn in the investment coefficient can be observed. This decline was noted earlier and it is visible, although somewhat less sharply, in the smoothed-out curves. Experience provides no means of judging whether it is an event of limited scope or one of far-reaching significance. Should it prove to be the latter, the growth rate of consumption would clearly have to decline if the rate of investment continued to slacken, since in the future the consumer goods and services will increase at a more moderate rate. But even on this extreme assumption—and there is no reason to believe that it will prove correct—the influence of the external forces must continue to be of great importance, although their pressure is exerted upon weaker rates of growth.

How do these forces react upon the investment coefficient? Without embarking upon a detailed analysis, they do so in two ways. The improvement in the terms of trade and an increase in exports—so long as the supply is elastic—on the one hand raise the profits of the entrepreneur both directly and indirectly; on the other, they provide him with incentives to invest. The direct increment in profits has to occur in the export trade,¹⁵ and is at once distributed as higher earnings among the productive factors employed in that sector. An initial impulse is thus given to income and demand which generally spreads out to internal activities by means of a well-known mechanism. This direct and derived expansion of demand causes domestic prices to rise and encourages a better utilization of existing capital, with a consequent increase in the product-capital ratio. In this way, the profits of the activities producing for the internal market grow simultaneously with the incentives to higher investment. As investment and consumption grow, imports rise; but, exports having also increased, such additional imports can be made without difficulty.

Thus, an improvement in the terms of trade and an increase in the volume of exports provoke a rise in income and its redistribution in favour of the entrepreneur. This not only acts as a stimulus to the investment coefficient, but also causes an increase in the product per unit of capital, unless adverse factors exert a stronger influence, as will be discussed later.

¹⁵ It is a fact that as the terms of trade improve, so export prices rise more than import prices, while as they deteriorate the former fall more than the latter. Hence the fluctuations in profits and other earnings in the export sector. A situation is conceivable where export prices remain stable while those for imports decline; the profits would then emerge in the import sector. But this does not appear to be the characteristic course followed by such movements. Furthermore, when the terms of trade deteriorate, the additional profits which importers may make are neutralized by the adverse effects of the over-all contraction in income. In any case, the decline of profits in the export sector is much more significant. This accounts for the sequence of the argument in the text.

Table 9. Latin America: Investment coefficient, capacity to import, and imports and exports of goods and services
(Moving three-year averages as percentages of gross income)

Year	Effect of the terms of trade with respect to 1950 (A)	Investment (B)	Capacity to import (C)	Goods and services		
				Imports (D)	Exports (E)	
					(millions of 1950 dollars) (F)	
1926.....	- 6.4	12.9	26.2	20.6	33.8	5,341
1927.....	- 6.5	12.4	27.3	20.6	34.5	5,711
1928.....	- 6.4	13.0	27.3	20.8	35.2	6,101
1929.....	- 7.9	12.8	25.4	19.7	35.0	5,963
1930.....	-11.2	11.4	22.2	16.7	36.0	5,866
1931.....	-13.2	9.3	19.2	13.0	35.2	5,359
1932.....	-13.6	8.0	17.7	10.9	34.5	5,204
1933.....	-10.7	8.5	18.1	10.7	31.3	4,931
1934.....	- 9.2	9.5	18.5	11.5	30.2	5,126
1935.....	- 7.2	10.2	18.0	11.6	28.2	5,204
1936.....	- 6.6	11.5	17.9	12.3	28.1	5,496
1937.....	- 6.2	11.9	16.8	12.5	26.8	5,439
1938.....	- 6.8	12.5	16.5	12.6	26.8	5,576
1939.....	- 7.6	12.2	14.9	11.5	25.3	5,284
1940.....	- 7.6	12.1	14.3	10.2	24.5	5,323
1941.....	- 7.0	11.2	12.6	8.7	22.0	4,953
1942.....	- 6.6	10.9	12.4	7.8	21.1	5,011
1943.....	- 6.5	11.1	12.3	7.2	20.7	5,146
1944.....	- 6.8	11.4	13.5	8.2	21.8	5,701
1945.....	- 5.7	12.0	14.4	10.3	22.0	6,195
1946.....	- 4.0	12.6	16.0	13.7	21.5	6,624
1947.....	- 2.4	14.3	16.0	15.9	20.8	6,930
1948.....	- 2.2	15.6	16.0	16.3	19.8	6,859
1949.....	- 1.5	16.1	15.8	15.8	19.2	6,899
1950.....	- 0.6	16.2	17.0	16.5	18.4	6,938
1951.....	- 0.1	16.5	17.6	17.3	18.1	7,102
1952.....	- 0.2	16.7	17.6	17.4	18.1	7,321
1953.....	- 0.2	16.0	17.0	16.7	17.7	7,407
1954.....	+ 0.1	15.2	16.8	16.4	18.0	7,658

Sources and methods: Figures calculated by the Economic Commission for Latin America.

Col. (A): Estimated by multiplying exports of goods and services at constant 1950 prices, by variations in the index of the terms of trade, with respect to 1950.

Col. (B): Gross investment in fixed capital, excluding, therefore, variations in stock.

Col. (C): Estimated by adding exports of goods and services at constant 1950 prices, the effect of the terms of trade with respect to 1950, and the net inflow of foreign capital.

A pause will enable a reflection of a different nature to be made. The external forces in question are the expression of cyclical fluctuations in the large industrial centres. In such movements, the investment coefficient naturally represents a variable of crucial significance, the alterations of which have a marked effect upon the other activities of the industrial centres, which in turn react upon the investment coefficient. In this way the external forces are generated which so vitally influence Latin America's investment coefficient. Hence it is clear that changes in the volume of investment in the great industrial centres are followed, although perhaps with a lag, by similar variations in the volume of investment made within the Latin American periphery.

It was previously stated that fluctuations in the terms of trade have a stronger influence than those in the volume of exports. Although exports also rise and fall, their movement is far less pronounced than that of the terms of trade, as may be seen by comparing the fifth curve in chart IV, representing the changes in the volume of exports, with the first curve, which shows the effect of the terms of trade. Furthermore, the fluctuation becomes still less perceptible

if exports are related to gross income, as shown in the sixth curve. In contrast, attention is drawn to the acute decline of this ratio from the beginning of the period to the end of the Second World War, and to its relative stabilization during subsequent years at a level far lower than that it had reached before the great depression. Consequently, if Latin America's post-war capacity to import has risen so sharply, this is entirely due to the influence of the terms of trade, as is clearly apparent in the third curve of chart IV. The capacity to import closely follows the terms of trade and there is no reason to believe that this influence will be modified in the immediate future. To show the volume of imports a fourth curve has also been presented, which intersects that of the capacity to import and follows its general movements, although with some deviations which can readily be explained.

2. The terms of trade and the product-capital ratio

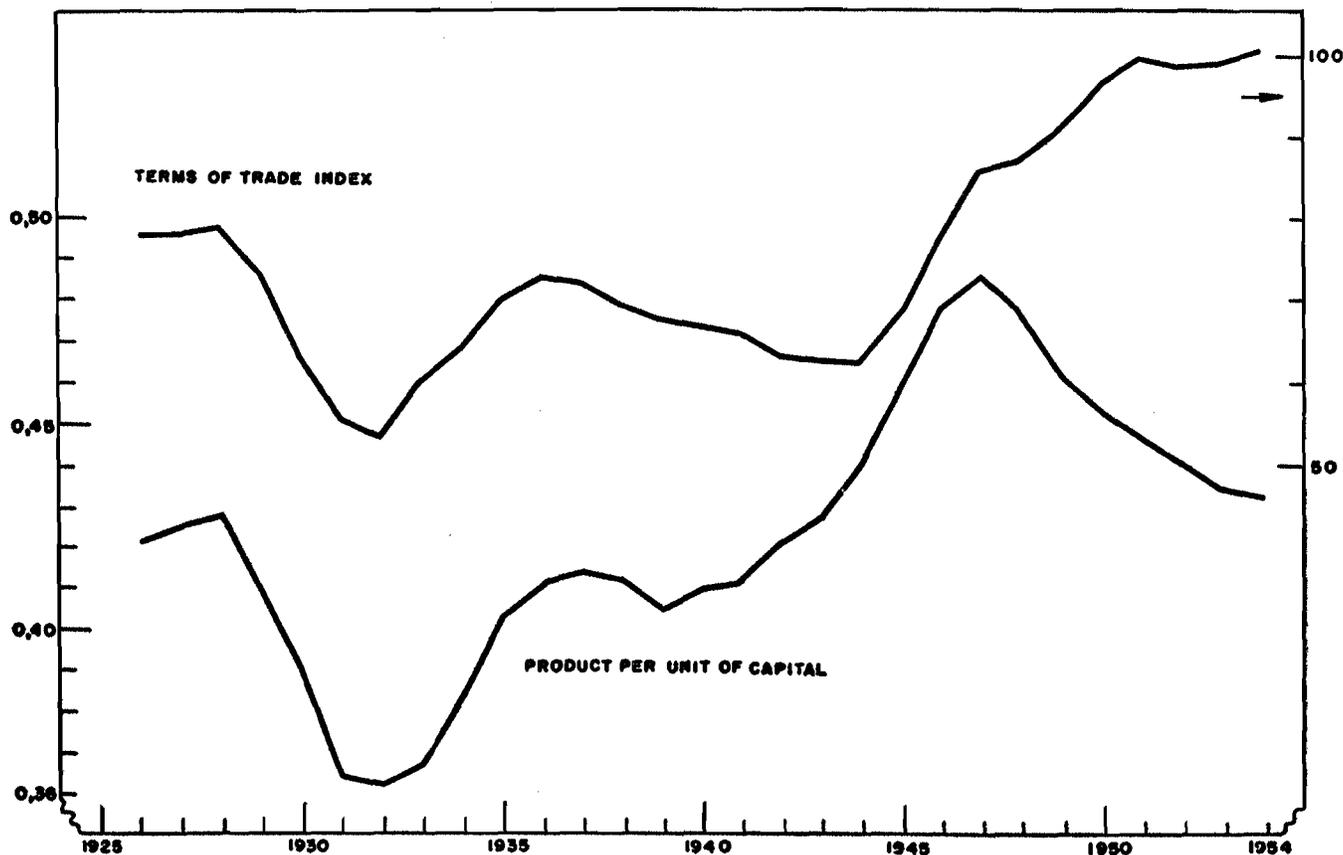
When the terms of trade and exports improve, the increment in domestic activity tends to raise the product per unit of capital. This reinforces the positive effects of the higher investment coefficient upon the rate of growth,

though these may be offset by factors which may counteract the tendency of the product-capital ratio to rise. To aid in the investigation of this point, chart V was prepared to show the evolution of both the terms of trade and the product-capital ratio over the last thirty years. (See also table 10.)

A comparison of the two curves plainly reveals that at certain periods they do not run parallel, from which it may be inferred that, during those phases, the action of other factors offsets the influence exerted by the terms of trade

upon the product-capital ratio. However, at the outset of the war, a phenomenon occurred whose consequences do not yet seem to have ended. The limitations that the war imposed on capital formation, as well as the urgent need to replace imports and to expand certain exports, led to the fullest possible utilization of the capital stock. By 1947, the product had risen to \$.50 per unit of capital, or 22 per cent above its level in the best years of the preceding decade (1935-37). As a result, despite the decline in the terms of trade, the product-capital ratio rose substantially.

Chart V
LATIN AMERICA: TERMS OF TRADE AND PRODUCT PER UNIT OF CAPITAL
Moving three-year averages
(Natural scale)



When the tension subsequently relaxed, the product per unit of capital began to drop towards a level similar to that at which it had stood before the great depression and which it had almost regained at the outbreak of the Second World War. Nevertheless, this fall reflects not merely a variation in the intensity with which capital was utilized, but probably also the effects of changes in its composition and of certain unsuccessful investments. It is a well-known fact that for basic social investments, such as electric energy and transport, the product per unit of capital is much lower than for investments in industrial and agricultural production. Such basic social investments fell to a minimum during the war, but their reappearance after 1945 contributed to the decline which has characterized the product-capital ratio during the last decade. In the

post-war period, this downward movement, although accompanied by an improvement in the terms of trade, could only be fully offset in the countries producing coffee and cacao, where the ratio tends to move perceptibly upward. It may thus be concluded that while the terms of trade play a dynamic role in bringing about the changes in the product-capital ratio, their influence is not so predominant here as on the investment coefficient. The effects of a rise in the investment coefficient upon the rate of growth of the gross product may therefore be neutralized by these other forces which tend to depress the product-capital ratio. This is exactly what occurred in the case of the countries which do not produce coffee and cacao.¹⁶

¹⁶ See sub-section 2(a) on the coffee and cacao producing countries, in section I.

3. The stability of the investment coefficient

Apart from the problem of the fluctuations in the investment coefficient, the fundamentally important fact remains that Latin America's investment effort is slackening. The investment coefficient is clearly declining at present, under the influence of the factors described above, and the outcome of this process must be established. In chart IV, the shape of the curve of the investment coefficient for the last thirty years might provide a basis for hazarding the hypothesis that it is tending to return to the approximate level of 14 per cent of the gross income at which it stood before the great depression, and which it almost reattained between the end of the depression and the Second World War. But knowledge of the economic dynamics of the region is still too rudimentary to allow valid conclusions to be drawn, and least of all from a mere chart. Furthermore, the period analysed is still short, and it has not yet been possible to examine the figures in greater detail to obtain a more thorough grasp of the process of development.

Nevertheless, it should be recognized that forces exist in Latin America which tend in the long run to give a certain stability to the investment coefficient, in the absence of any deliberate policy designed to raise it. This is by no means exceptional. Research carried out in the United States¹⁷ shows that, notwithstanding all its fluctuations, the investment coefficient shifts relatively slowly.

Careful consideration indicates that there are forces which tend to make the shift in the coefficient a slow process in countries where the intensity of development has been closely dependent upon the rates of technical progress and demographic growth, as in the case of the United States. In fact, the rate of demographic growth does not change rapidly, nor does the rate of increase in productivity appear to have been subject to sudden fluctuations, despite a continuous succession of technical innovations. The rise in the population and the pace of technical progress were the two principal factors determining the need for capital; and their slow expansion seems in the past to have restricted capital formation, whatever may have been the volume of saving spontaneously generated by the economy.

It is clear that the progress of countries in course of development need not be so gradual as that imposed by productive techniques upon nations which have already reached economic maturity. The rapid assimilation of these techniques, unaccompanied by the necessity of following the various stages of their evolution, would enable more intensive growth to be achieved. Nevertheless, just as the development of the techniques followed a historic rate of growth, so their spontaneous assimilation also appears to maintain a pace that can only be modified by deliberate and persistent action.

An indispensable prerequisite for this possible speeding-up of the rate of technical conclusion is a rise in the investment coefficient. This is the important conclusion to which these preliminary considerations lead. A basic problem at once arises, both in practice and in theory. Can the interaction of economic forces cause an increase in the investment coefficient, or rather, can it be spontaneously and permanently shifted to a higher level? In order to

¹⁷ See S. Kuznets, "Proportion of Capital Formation to National Product" in the *American Economic Review*, Vol. XLII, No. 2, May 1952. This report was submitted at the 64th Annual Meeting of the American Economic Association held in December 1951.

Table 10. Latin America: Index of the terms of trade, and product per unit of capital

(Three-year moving averages)

	Index of the terms of trade (1950 = 100)	Product per unit of capital
1926.....	77.6	0.42
1927.....	77.8	0.42
1928.....	78.7	0.43
1929.....	73.3	0.41
1930.....	63.5	0.39
1931.....	55.8	0.36
1932.....	53.7	0.36
1933.....	60.3	0.37
1934.....	64.7	0.38
1935.....	70.1	0.40
1936.....	72.7	0.41
1937.....	72.3	0.41
1938.....	69.7	0.41
1939.....	67.6	0.40
1940.....	66.6	0.41
1941.....	66.1	0.41
1942.....	63.4	0.42
1943.....	63.0	0.43
1944.....	62.6	0.44
1945.....	68.8	0.46
1946.....	77.7	0.48
1947.....	85.7	0.49
1948.....	87.1	0.48
1949.....	91.1	0.46
1950.....	96.6	0.45
1951.....	99.3	0.45
1952.....	98.5	0.44
1953.....	98.9	0.43
1954.....	101.1	0.43

Sources and methods: Figures calculated by the Economic Commission for Latin America.

accelerate the rate of growth by means of more rapid absorption of modern productive techniques, do internal forces exist which are in themselves capable of raising the investment coefficient?

Nothing is simpler than to give a numerical example of how it would be possible, by curtailing consumption for a number of years, to attain an investment coefficient which would result in such acceleration, thus compensating in the future the privations which higher current investment would inevitably entail. But more than a mere mathematical illustration is involved. The proportion of income utilized for consumption and investment as a result of the spontaneous interaction of economic forces is by no means arbitrarily determined. There is a close interdependence between the growth rate of investment and that of consumption in an economy based on private enterprise.

A distinction must now be made, which, to avoid confusion, should be borne in mind throughout section II. The subject dealt with here is the process of economic growth and not that of a cyclical recovery. Far from the growth of consumption and investment being incompatible, when unused productive capacity and unemployed labour exist, both can rise simultaneously. The topics with which this section is concerned are the long-term expansion of productive capacity and of real income, and the previous stimulus to demand which this necessarily implies.

The numerical example, mentioned above, is now relevant. If, for instance, consumption rises at an annual rate of 4 per cent and the product-capital ratio stands at 0.33—that is, if 3 per cent net of the product is required to raise consumption 1 per cent—for the latter to continue its steady increase at the given rate, the net coefficient of savings and investment must be 12 per cent, provided that the product-capital ratio remains constant. What spontaneous economic forces would induce the entrepreneur to invest enough for the investment coefficient to reach 15 per cent, so that, once this had been achieved, the future rate of growth of consumption might rise from 4 to 5 per cent? On the most favourable assumption—that is, if the entire increment in savings required to cover the higher investment were used to raise employment in capital goods industries, without increasing the volume of imports¹⁸—the demand of the newly employed labour would only offset the lower consumption of those who made this additional saving. Consequently, no additional demand would exist, which could bring about a higher rate of consumption and induce entrepreneurs to raise the investment coefficient; in any case, such inducement would have to precede rather than succeed a rise in that variable. If this transitional period is ignored and it is assumed that all adjustments have already been made in the different factors involved in the problem, it is possible to envisage the development of the economy adapted to a new investment coefficient and to a new rate of growth of production and consumption. But such an assumption would be arbitrary, because it is during the period of transition that the real difficulty appears. This obstacle is the incompatibility between a constant rate of growth of consumption and the spontaneous inducement to higher investment which would accelerate the rate of increase of consumption.

When economic growth follows the usual pattern, this ratio between the investment coefficient and the rate of consumption—determined in the last resource by the assimilation of productive techniques and by demographic growth—fluctuates cyclically. But deviations from the trend in one direction tend to be corrected by others of an opposite sign. This compensatory movement was perhaps partly responsible for the slowness of the long-term shift in the investment coefficient which took place in the United States.

It is unnecessary to repeat that these digressions are not merely of theoretical significance. On the contrary, they are based on a very important practical consideration. Latin America is faced with the urgent problem of speeding up its rate of growth. After the exceptional acceleration during the post-war years until 1952, a combination of factors seems to have reappeared which could be expected to warrant only the comparatively moderate rate of growth in income mentioned earlier. On the other hand, it is not clear how the incentives and resources required to quicken this pace through greater investment can be provided by the free interaction of internal economic forces.

Nor can any reliance be placed upon an increase in exports sufficiently rapid to give the expansion of internal

demand that stronger impetus without which there would be no vital incentive to raise the investment coefficient.

The next question to be dealt with is consequently the nature of the dynamic influence exerted by the growth of exports and the way in which the effects produced upon the rate of demand by a weakening in that growth can be corrected and overcome through the process of import substitution.

B. THE RATE OF GROWTH OF DOMESTIC DEMAND

1. *The expansion of exports and its stimulus to investment directed towards domestic development*

At this point consideration must first be given to the dynamic influence of external forces. Among their fluctuations, the most important role has already been assigned to those of the terms of trade. But a question of broader scope must now be discussed. It refers to the influence exerted upon the development of domestic activities through those fluctuations by the more or less intensive growth of exports and of their relative prices. This is basically a question of the growth of productive capacity throughout the whole economy, embracing both export activities and production for the domestic market. In the analysis that follows, the degree of utilization of existing productive capacity is left out of count.

After this explanation, three topics must be considered: firstly, the mechanism which enlarges the effects of the increment in exports upon internal demand; secondly, the relation between the growth rate of exports and that of gross income as a result of these repercussions; and, thirdly, the way in which the greater demand arising from the expansion of exports encourages an upward movement in the investment coefficient, thus accomplishing what the internal economic forces could not achieve spontaneously.

The mechanism and the elements determining the extent of the influence of exports will be examined first. According to the assumptions formulated in this section, an increment in exports, in response to foreign demand, requires previous investment, with a consequent expansion in the employment of productive factors and in their corresponding earnings. The rise in income creates higher internal demand and enables activities which meet this demand to expand many times more than the original impulse from which it arose, in accordance with the familiar concept of the foreign trade multiplier. But multiplication is not an automatic process, when idle capacity is non-existent. It primarily depends upon the degree to which entrepreneurs respond to the growth of internal demand. According to this assumption, the multiplier constitutes a value limit. According to this assumption, the multiplier constitutes a value limit. Whether or not real income can attain this limit is dependent upon factors which are discussed in the following paragraphs.

The limit is decisively influenced by the magnitude of the import coefficient. If this coefficient remains constant—which for simplicity's sake may be momentarily assumed—the limit of the increase in real income embodied in the multiplier is given by the reciprocal of the import coefficient.

Thus, if income stands at 1,000 and imports at 200 (equivalent to exports), the coefficient will be 0.20 and the

¹⁸ This situation does not of course occur in the Latin American countries, where about 36 per cent of investment represents capital goods imported. This is a further obstacle to a spontaneous rise in the investment coefficient, in the absence of external incentives or of a planned policy.

multiplier $\frac{1}{0.20} = 5$, that is the number of times imports are contained in income.

In pursuance of this numerical example, an initial increase of 10 per cent may be assumed in the volume of employment of the factors occupied in export activities, with a corresponding increment of 20 in income. This increment may bring about a rise of 100 in domestic demand and production, in accordance with the multiplier. When this limit is reached, the expansion of imports will be equal to the increment of 20 in exports. Beyond this point the additional demand created by the initial growth of employment and income will be exhausted; and were a further increase in demand, of an inflationary character, to intervene, the rise in imports would exceed that of exports.

In other words, an expansion of exports stimulates income to grow to a point where the increment in imports caused by such growth is equal to the increase in exports brought about by higher investment in export activities.

This intensification of the growth of real income is only conceivable if, by virtue of the stimulus given to demand by the export expansion, investment in activities producing for the internal market is raised. It is still only conceivable if other investments are made to meet the additional demand created by the original investment in internal activities, and so on successively until the aggregate investment required for the growth of real income is reached. The aggregate investment depends upon the average product-capital ratio and if this represents 0.33, as in the previous example, three units of capital per unit of product will be needed. In other words, the increment of 100 in income would require a previous additional investment amounting to 300. This would be true only if no unused capacity existed which might permit production to rise without increasing investment; but this possibility has already been dismissed, because a phenomenon of growth is being discussed, and not short-term fluctuations.

When unused productive capacity occurs during short-term fluctuations, it is understandable that savings may act as a brake upon the expansive effects of a rise in exports. But in the case considered here, savings are indispensable if productive capacity is to increase. Moreover, in this instance savings do not restrict demand, because those effected by some groups, while reducing their own consumption, serve to cover that of other groups, namely, the additional labour force, whose wages are paid out of such savings. There is thus a mere shift of consumption and therefore of the demand which precedes it. Without saving of this kind, development would be impossible. Consequently, the more saving responds to a given stimulus to internal demand, arising from the export sector, the higher will be the increase in productive capacity and the growth of real income.¹⁹

¹⁹ It should not be forgotten in this connexion that the growth of real income presupposes two essential ingredients: saving and monetary expansion. Saving is necessary to cover the earnings of the increase in the productive factors employed in the formation of fixed and circulating capital. Monetary expansion is required to cover the earnings of such factors, to the extent necessary to absorb finished goods when they are produced by this additional capital. The economic process includes no mechanism to ensure the exact proportion in which these ingredients should be combined, if both an excess and an insufficiency of demand, in face of the increased production of finished goods, are to be avoided. It would be erroneous to confine the different variables involved to a simple mechanical formula.

2. The expansion of exports and the rate of internal growth

Such, in outline, is the process whereby the expansion of exports encourages that of internal demand. The relation between the growth rates of these two variables has not yet been defined, but it depends upon both the import coefficient and the investment required for growth.

It was assumed in a previous example that the import coefficient was constant. It was then proved that the limit of growth for a country's global income would be equal to the growth rate of exports, in a first approximation where other factors were held constant.

But the import coefficient is not necessarily constant. On the contrary, forces exist in Latin America's development which tend to raise it spontaneously and must be offset so that the growth may proceed at a rate which is at least equal to that of the increase in exports. The constant coefficient in fact implies that the demand for imports increases at the same rate as that of income; in other words, that its income-elasticity is equal to unity.

But this is not the case. The elasticity of the demand for imports is usually higher than unity, so that they tend to increase at a faster rate than *per capita* income. If this tendency is left to operate freely, the intensity of the growth rate of income will be inferior rather than equal to that of exports.

For greater clarity, reference may be made to the previous example where exports increased by 10 per cent, while the import coefficient remained constant at 0.20 on the implicit assumption that the income-elasticity of the demand for imports was equal to unity. The hypothesis will now be adopted that imports grow at a more intensive rate than income, with an elasticity of 1.40, for example. This does not imply that they will necessarily grow more than exports, but that the increment in the latter will have weaker expansive effects upon income than previously. It is easy to prove the extent to which these effects will be lessened. If income has to grow by 1 per cent for imports to rise by 1.4 per cent, then the former will have to rise $\frac{0.10}{0.014}$, or 7.14 per cent so that the latter can expand at 10 per cent, that is, to the same extent as exports. In other words, the growth rate of income will be equal to that of exports divided by the elasticity coefficient.

In its turn, the import coefficient corresponding to the rise in income—that is, the marginal coefficient—will have increased to the same extent as elasticity ($0.20 \times 1.4 = 0.28$), which means that the multiplier—whereby the effects of the increment in exports are enlarged—will no longer be 5, as in the preceding example, but less, or: $\frac{1}{0.28} = 3.57$.

It is therefore clear that the more intensively imports rise with the growth of income, the less will be the expansive effect of a given increase in exports upon the internal economy. The maximum growth rate of income will be lower than that of exports, to the extent that the elasticity of the demand for imports is higher than unity. Conversely, if imports tend to expand less than *per capita* income (elasticity lower than unity), the maximum growth rate of income will be higher than the rate of increase of exports, a point which will be discussed at more length later.

A more rapid rise in exports than in income is not a mere hypothesis. During the first stage of Latin America's

development, when growth was determined by external factors—the increase in exports and foreign investment in the export sector—the growth rate of income appears to have been lower than that of exports, thus resulting in a higher import coefficient. This does not imply that development was slow, since exports of primary products increased rapidly. They did so, not only because of the increment in income in the great industrial centres, but also—to judge by what happened in the most important of them at that time—because the expansion of the latter's imports of primary products tended to outstrip that of their income.

It is, indeed, an established fact that the import coefficient of the United Kingdom rose continuously from the Industrial Revolution until the end of last century. The reason was not that the income-elasticity of the demand for primary products in the United Kingdom was greater than unity, as is often the case with the demand for industrial goods on the periphery, but rather that British imports expanded to the detriment of domestic production. A type of inverted substitution took place, so that even if the income-elasticity of the demand for primary products was lower than unity, that of imports of such commodities was definitely higher than unity.

3. *The growth of exports and the rise in the investment coefficient*

The present stage of Latin America's development poses a problem entirely different from that arising in its earlier period of externally induced growth. Relatively speaking, the expansion of exports has slackened with the years. Although successful efforts could be made to increase them, the rate of development would be extremely weak if it depended upon exports alone, because, in addition to their slow growth, the income-elasticity of the demand for imports is as a rule higher than unity. From this and other equally important aspects, Latin America is at present developing under much less favourable conditions than those which prevailed in the United States. During the nineteenth century, United States exports rose steadily at a rate of 3.6 per cent annually. In contrast, during the last thirty years aggregate exports from Latin America have expanded at an annual rate of only 1.14 per cent. In order to reach the rate of growth in income, which was in fact attained (3.7 per cent annually), the import coefficient had to be drastically reduced.

The third aspect of the problem, namely, the stimulating effect of the rise in exports upon the investment coefficient, can now be examined. If the increase in exports is such that it causes the growth rate of internal demand to rise, although not necessarily with the same intensity, the vital stimulus required to raise the investment coefficient would have been achieved. The increment in the latter is a prerequisite if the accelerated growth of internal demand is to induce a higher rate of increase in real income.

In this case, the incompatibility already noted between a parallel rise in consumption and in investment would no longer exist. In fact, if free play is given to the economic forces, the investment coefficient cannot rise without the incentive of an increase in the growth rate of consumption; this cannot take place unless the investment coefficient grows.

This vicious circle can be broken by raising exports, because it provokes a rise in the rate of growth of internal demand. If, to meet this demand and to expand consumption, the savings coefficient (and the corresponding investments) increase, these higher savings do not act as a brake upon the growth of the former. The only consequence is that the decline in consumption of those who save more benefits the newly employed labour, whose earnings are paid from these additional savings.

Thus an essential condition for the expansion of the investment coefficient is fulfilled: it must be preceded by an increase in the growth rate of demand.

From another angle, it is a different problem whether savings will or will not react to the stimulus. During the period when the growth of the Latin American countries was externally induced, the primary impulse to their economies arose from investment in the export sector, related activities and basic services without which these countries could not have developed as they did. But the intensive growth of income progressively created favourable conditions for a gradual rise in the coefficient of domestic saving. Although this point is important, it will not be discussed here, since this analysis at present aims only at clearing the ground for consideration of the expansive effects of import substitution.

4. *Import substitution and the rate of internal growth*

At best, the growth rate of income could not have exceeded that of exports without progressive import substitution, although, within moderate limits, exports could have expanded further. But this is another aspect of the problem which is not pertinent at this stage. The dynamic effects of import substitution are similar to those of an increment in exports. They permit the attainment of a higher rate of development than can be reached by raising exports. Clearly, this higher rate of development ultimately depends upon an increase in the active population and in its productivity, accompanied by the typical shift of man-power from primary production for the domestic market and from artisan trades to industry and other activities of higher productivity, to the extent that man-power is not required to develop the export sector. It is also indispensable that a previous rise in the growth rate of demand should create favourable conditions for accelerating the rate of capital formation, without which the steady increase in man-power cannot be absorbed with rising productivity. Briefly, the following is the role played by greater employment in activities for import substitution: the acceleration of the growth of internal demand, which leads to a higher rate of economic development, in so far as export activities cannot achieve this objective.

Before proceeding further, one point requires elucidation. The term import substitution is used in its broadest sense. It refers not only to the domestic production of articles currently imported, but also to that of other domestic goods or services towards which demand shifts when certain imports are restricted. In both cases, there will be an increase in employment and earnings in internal activities, which will have an expansive effect similar to that which occurs when employment in the export sector rises. This analogy refers exclusively to the impact on domestic demand, since the effects of the substitutive process, viewed from another angle, usually differ from those arising from higher exports. Furthermore, they are generally of a much

more complex nature. Greater employment in import substitutive industries brings about a primary expansion of income that stimulates both demand and the investment required for the expansion of productive capacity in other domestic activities. Once again this is a phenomenon of growth and not of a better utilization of existing capacity. In such an expansion, the multiplicand is given by the increment in income resulting from the rise in employment in import substitutive activities, while the multiplier, which sets the limit for the growth of income, is the reciprocal of the import coefficient. The growth of income will cause higher imports, but they will be offset by the reduction achieved through the process of substitution.

Another simple example will make this clearer. An income-elasticity of the demand for imports equal to unity will be assumed, to avoid introducing a second element of contraction into the import coefficient, although such a factor could easily be accounted for later. Assuming an income of 1,000, which did not increase because exports and imports remained at a level of 200, the import coefficient would then be 0.20 and the multiplier 5. Under such conditions, if a substitution of imports of the order of 20 were achieved, the coefficient would fall to $\frac{180}{1,000} = 0.18$, and the multiplier would rise to $\frac{1}{0.18} = 5.555$. With this multiplier, the increment in income corresponding to a rise of 20 in employment in the import substitutive activities might reach a limit of 111.11. At this limit, the additional imports caused by higher income would be equal to the imports which were replaced.²⁰

If the income-elasticity of demand were assumed to be greater than unity, instead of equal to it, the multiplier would obviously be lower—as was seen in the case of exports—and a greater degree of substitution would be necessary to reach the same limit of income growth. In other words, the higher the elasticity coefficient stands above unity, the smaller will be the multiplier and the more intensive must be the effort towards substitution to obtain a specific growth rate for internal demand.

Hitherto import substitution only has been discussed. Another example must be considered if this brief explanation is to be complete. This new example refers to a simple curtailment of imports without any substitution whatsoever. This situation might occur, for example, if heavy duties were placed on superfluous or non-essential imports. Their volume would be reduced, and from the income which would have been spent on the suppressed imports, a part would be diverted to the internal market, thus promoting the production of the same or other goods and services, and another part would be absorbed by the duties. The expansionist effects of the former share have already been noted.

The second part would also cause similar consequences, unless the State hoarded this revenue. If, on the other hand, these resources were used to increase employment, either through public investment or current expenditure, the rise

in income thus generated would expand domestic consumption and real income to the limit set by the multiplier. Consequently, this example might very well be compared with that of import substitution.

Given the similarity of these processes for expanding demand, which were explained when the same problem was analysed in dealing with exports, it would be superfluous to demonstrate once more the essential need of raising the investment coefficient, so that the higher rate of increase in demand may find expression in an acceleration of the growth rate of income. Nor is it necessary to emphasize further that the stimulus to demand thus created would reconcile the incompatibility between the increases in the rate of investment and in that of consumption arising from the spontaneous interaction of economic forces.

5. Public investment and growth of income

It may have seemed strange that when the factors capable of increasing demand were examined, no mention was made of public investment. Its stimulating influence will hardly be questioned when productive capacity is lying idle or when an increment in such investment is partly or totally financed through credit expansion. In such a case, demand undoubtedly does rise. This analysis, however, is not concerned with a recovery of this nature, but with the process of growth. What then would be the effect upon demand of an increase in public investment?

The answer also depends on the way in which such investment is financed. If the resources accruing from heavier taxation are used, the increase in income corresponding to the additional volume of employment caused by public investment will have no expansive effect whatsoever. There will simply be a shift in the demand, as was explained elsewhere: the demand of the newly employed will offset the reduction in the consumption of those who save more or who pay the higher taxes destined to provide resources for increasing such investment.

Conversely, if this increase is financed in some different way, for instance, by credit expansion, there will be a rise in demand of undoubted expansionist influence. When this occurs, however, imports will also rise, thus provoking an external disequilibrium which will ultimately become an insurmountable obstacle to the process of expansion. It therefore appears unlikely that public investment can serve as an effective instrument to raise the rate of growth of demand and income in the present context.

Nevertheless, it might be thought that if the increase in public investment were to be combined with a policy of substitution, the obstacle described would disappear. If the rise in employment resulting from public investment were accompanied by a more extensive substitution of imports, the one expansive process would be superimposed on the other, and imports would grow faster than their substitution. The resulting disequilibrium could only be avoided if the additional investment were financed by savings, but there would then be no expansionist effects whatsoever.

As far as actual growth is concerned, therefore, heavier public investment offers only one possibility of producing expansionist effects, namely, the case analysed above, where the increment in investment is financed by a duty restricting imports that are not replaced by domestic production. This means of expansion—which is as effective as

²⁰ It might have been argued that the marginal coefficient of imports, corresponding to the increase in income, is equal to 0, since the rise in imports caused by such an increase is as large as the decrease effected by the process of substitution. This of course makes no difference to the logic of the argument or to its results.

that resulting from higher employment in export or substitutive activities—could be beneficially applied in those countries where there is an appreciable margin for the reduction of the demand for certain imports by means of tariffs. But import substitution would still be necessary, since productive capacity must be increased if the growth of demand is to result in a rise in real income. For this purpose, additional imports of capital goods would be required, which could only be made by replacing other imported commodities with domestic products. At all events, once the margin of imports which can be reduced through taxation is absorbed—which is bound to occur sooner or later—the only way of raising the rate of growth of demand and real income will be through the steady increase of employment in substitutive activities, in so far as the inadequacy of the export sector as a dynamic agent makes it necessary.

One last comment remains to be made. Latin America's exports tend to increase slowly, and even if efforts to accelerate this process proved successful, a rate of growth compatible with the present level of investment could hardly be attained. For this reason, and because of the high income-elasticity of demand for imports, a policy of substitution must be vigorously pursued under more difficult conditions than before; these conditions could be eased however—as has been pointed out in other reports—by a broader basis for inter-Latin-American trade.

Import substitution would need to be far more intensive in order to accelerate the rate of economic growth. The investment coefficient would have to rise, and should it not seem desirable or feasible to reduce *per capita* consumption, it would be necessary to resort to external sources of financing. Other ECLA reports have emphasized the transitory nature of the need for external resources, if measures are adopted to raise the domestic savings coefficient high enough to finance the entire investment required. It has also been shown that these measures can be carried out as *per capita* income rises. Herein lies, however, one of the most difficult problems for development policy, since the population does not readily change its savings pattern. Special incentives and a clearly-defined and coherent policy will be required to alter it. Government saving from the budget surplus will possibly have to increase to the extent necessary to supplement spontaneous private saving.

It is not this topic, however, which will now be discussed, but another, related to import substitution. The utilization of external resources will enable capital goods imports to be increased in order to accelerate the rate of growth of income. But as the coefficient of national savings rises, consumption declines in the same proportion, instead of increasing at the higher rate corresponding to the more rapid growth of income. There will thus be no incentive to invest in conformity with the new coefficient, and it will be vital to offset the effects on internal demand of a rise in the coefficient of national saving. This can only be achieved in two ways: either by substituting domestic production for capital goods imports so that additional savings are not diverted abroad; or by effecting new substitutions of consumer goods, raw materials or fuels in order to offset the consequences of this transfer of savings.

C. IMPORT SUBSTITUTION AND EXTERNAL TENSION

1. *The scope of the substitution problem*

Apart from the foregoing, there is another aspect of the substitution problem important enough to deserve more thorough analysis. The magnitude of this problem, in other words the degree of import substitution required by Latin America, will now be examined. It depends upon the rate of growth of income and of the capacity to import. For example, if the 1954 investment coefficient and product-capital ratio were maintained, the region's annual rate of growth would be approximately 3.7 per cent; and if the capacity to import were to increase at the same relatively low average rate of 1.5 per cent as during the last thirty years, import substitution would have to take place at a rate of 2.2 per cent annually, representing the difference between the two preceding rates.

Substitution calls for previous investment, which in turn requires imports of capital goods. The volume of the latter depends on the product-capital ratio, on the one hand, and on the import content of investment, on the other. As before, it may be assumed that three units of capital are required to obtain one unit of product. If the import coefficient were 0.36 (which is roughly what the import content of investment has been in Latin America during recent years), approximately 1.10 units of capital goods would have to be imported to enable one unit of imports to be replaced. This would imply that for substitution to proceed at the rate of 2.2 per cent annually, previous imports of capital goods equivalent to 2.4 per cent of total imports would be required.

Such purchases would be made at the expense of other types of imports. It would obviously be pointless to import these new capital goods to the detriment of goods of the same kind at present being imported, or of raw materials and fuels. These three items account for about 70 per cent of aggregate Latin American imports, and finished consumer goods represent only the remaining 30 per cent. Consequently, the new imports of capital goods, equivalent to 2.4 per cent of aggregate imports, could be effected only by lowering the volume of imports of consumer goods by about one-tenth.

2. *The timing of substitutions*

On the face of it this would not appear to present a serious problem. In normal times, there is usually a sufficiently wide margin to permit a compression of this magnitude in imports. But in fact substitutions do not in general proceed gradually: very often they result from sudden pressures and not from a far-sighted policy. Thus, in periods of relative abundance of foreign exchange full advantage is not taken of the opportunity to import the capital goods required by substitutive activities, since at such times the need to foster these activities is not in evidence. When the growth of income or the weakening which sooner or later takes place in the capacity to import results in external pressures, substitution very often becomes a peremptory need. It is then necessary to accelerate a process of substitution which should have been effected over several years, and to do so at a time when the capacity to import is far from favourable. In Latin America, extreme examples are to be observed in which this capacity is barely sufficient to meet the most pressing current needs.

When such a situation occurs, recourse to foreign sources of financing becomes essential, no longer with the aim of accelerating the rate of development, but merely to carry out those substitutions which are indispensable to maintain a country's current rate of growth. This is a question not only of investment but also of the practical possibilities of achieving the required substitution economically and within a reasonable period of time. The situation varies considerably within Latin America. However, it is not this problem, important though it is, that will now be analysed, but that of the capital goods imports required for the substitution.

At a critical moment of the kind described above, the perturbing maladjustments brought about by inflation become very clear; and even before such a point is reached, it is doubtful whether inflation can be an efficient mechanism for a development policy, which requires great foresight in relation both to substitutive activities and to other primary requirements of domestic development. In fact, the most typical feature of inflation, under favourable external circumstances, is that present comfort blurs awareness of the future.

A pause at this significant point is indicated. In a far-sighted substitution policy, advantage would be taken of periods of relative foreign exchange ease in order to import the required capital goods by restricting non-essential or superfluous imports of finished consumer goods.²¹ Inflation usually increases investment only when profits increase, thus modifying the distribution of income in favour of entrepreneurs. However, this leads not only to higher investment, but also, above all, to higher entrepreneurial consumption, the latter growing at a much faster rate than the former. Moreover, the consumption of the high-income groups generally has a larger import content than that of the lower-income groups. Thus, when the investment stimulated by inflation takes under favourable circumstances the form of capital goods imports, the latter are generally accompanied by a large volume of consumer goods imports, which, within an adequate substitution policy, would have been restricted in favour of additional imports of productive goods.

3. *A far-sighted substitution policy*

This is not the first time that ECLA reports have referred to the need for a carefully thought-out substitution policy. On the contrary, this is one of the subjects which, because of its importance, has been most emphasized. Moreover, the necessity of such a policy is one of the main justifications for the programming of economic development. These ideas are worth recalling in outline. A well-conceived programme based on careful projections of future demand for consumer and capital goods and of the capacity to import gives an approximate idea of the quantity and nature of the substitutions to be effected if a specific rate of development is to be achieved without the periodical external disequilibria which have so often afflicted the countries of Latin America. A substitution policy must therefore anticipate events and take advantage of periods of foreign exchange ease to restrict non-essential imports

²¹ This does not imply that only imports of these goods can be curtailed, but that these are commodities which can be eliminated without affecting economic activity; on the other hand, in order to reduce imports of raw materials or of indispensable consumer or capital goods it would be necessary to import beforehand the capital goods required for the production of substitutes.

and to purchase the capital goods required, so that the composition of imports may adjust itself to the changes in the structure of the economy that are inherent in development.

Again, in such a programme a systematic analysis should be made of the possibilities of improving the utilization of existing capital before increasing productive capacity with new capital goods imports. How far additional capital goods imports are possible will depend on the extent to which greater utilization of the productive capacity is attained. It is superfluous to emphasize the practical importance of this.

Ultimately, the fundamental objective of a programme is to achieve a more rational utilization of the limited resources available in order to speed up the development of a country or to maintain the satisfactory rate already existing. The more efficiently this purpose is fulfilled, the more it will be possible to reduce the supplementary foreign investment required to raise the investment coefficient.

4. THE INFLATIONARY STIMULUS OF DEMAND AND ITS CONSEQUENCES

1. *An optimum example of inflation*

Despite the preceding statements, a combination of a substitution policy with a moderate inflationary expansion is conceivable. The possibility of employing inflation to foster investment under certain specific conditions should not be entirely overlooked. But these conditions are seldom or never encountered in reality. It is thus advisable to examine some topics on which confusion frequently arises.

A distinction is sometimes drawn between an inflationary process which encourages speculation or is simply the result of inordinate fiscal expenditure, and an inflation which makes a positive contribution to economic development. The possibility of the latter type of inflation might be logically demonstrated. A series of moderate inflationary impulses can conceivably arise, from an increase in public investment for example, which would have two consequences. Firstly, it would stimulate demand. Secondly, entrepreneurs would be provided with excess profits which would enable them to make the necessary investments to meet this enlarged demand. Of course the increase in profits accrues from the inflationary rise in prices. But such a rise need not necessarily continue beyond a certain limit, since after some time the investment made by entrepreneurs will begin to bear fruit. If the monetary expansion originating in public investment is not greater than the increases in production thus achieved, there is no reason for prices to continue to rise. The price level and the volume of profits already attained, which permits entrepreneurs to maintain the volume of investments, will remain unchanged. The greater the share of profits earmarked for investment instead of consumption, the greater the dynamic impact of this type of inflation.

To paint a still more favourable picture, it has also been assumed that this cautious inflation could be combined with a far-sighted import substitution policy to prevent the emergence of external obstacles to the growth of income. If this could be achieved, inflation would have proved to be an efficient means of reconciling the incompatibility between increases in the rate of investment and in the rate of demand which was observed to be inherent in the spontaneous interaction of economic forces. It is therefore

important to discover what really stands in the way of such a policy.

2. *Reasons why inflation does not usually increase capital formation*

Apart from external factors which it is not pertinent to discuss here, there are two additional reasons why inflation does not lead to higher capital formation. The first concerns the volume of profits earmarked for investment; the second relates to the curtailment of consumption. As to the former, this optimum case that has just been presented, in which the whole inflationary increment of profits is assumed to be utilized in investment and not in consumption, is remote from the experience of Latin America. In Mexico, which is one of the countries where inflation has had some positive effect on investment, a redistribution of income in favour of the higher-income groups allowed them to increase their consumption about ten times more than their investment,²² since their savings-investment coefficient of about 20 per cent of income remained virtually unchanged. The effect of inflation on capital formation was therefore very weak.

As to consumer pressure, it is highly unlikely that the large groups of the population unfavourably affected by the inflationary redistribution of income will not attempt to restore their real income to its previous level. This is precisely what fosters the continuous rise in prices, even when production increases steadily. It is evident that if higher wages and salaries were paid for by entrepreneurs out of their unusually large profits, the latter would disappear, so that the expansion of investment would be replaced by an increase in consumption. Inflation would then be checked and the economy would return to something like its original position, although at a higher price level. This has not been the usual experience in Latin America. Salary increases are financed by an expansion of bank credit and inflation thus goes on in the well-known price-wage spiral. In such a case, the proportion of real income received by the entrepreneur depends partly on his willingness to have recourse to the credit system and the latter's responsiveness, and partly on the ability of employees and workers to defend their real wages.²³

It is true that the gradual increase of productivity might enable the wage-earners to recover the real income lost, even if the level of profits remained unchanged. But the process is slow; and it would not be superfluous to consider the magnitude of the loss and the time required for its recovery, in order to see this aspect of the case in its true proportions.

Another useful numerical example may be constructed on the assumption that the rate of growth of income in a given country barely keeps in line with that of population, and that it is desired to increase this rate of growth through inflation. It is further assumed that the share of wages, salaries and other income which might be affected by inflation is 60 per cent of total income, while the remaining 40 per cent represents the proportion received by entre-

preneurs, a distribution which reflects reality. As in other cases, it will be established that about three units of capital are required to obtain one unit of product. A final premise will be that the economy is not affected by any external disequilibrium. For *per capita* income to increase 1 per cent annually, the investment coefficient would have to be raised to 3 per cent of income. How much would the income of the entrepreneurial sector have to increase to achieve this rate of investment? This depends on the share of profits saved; if it were 50 per cent, profits would have to rise to 6 per cent of total income for the savings-investment coefficient to increase by 3 per cent; and as this 6 per cent rise would be at the expense of the rest of the population, made up mostly of employees and workers, their aggregate real income would have to be reduced to 54 per cent to enable the entrepreneurs to make the additional savings. Since rentiers and, as a rule, property-owners are among those adversely affected by inflation, a major share of the burden might fall on their shoulders, as, indeed, is usually the case. Nevertheless, the 6 per cent reduction affecting the wage-earners gives an idea of the extent to which this important component of income suffers.

How long will it take to restore this loss? If real *per capita* income grows at a rate of 1 per cent annually, seven-and-a-half years would seem sufficient, or less if all the increment in productivity were used to this end. If, however, this is not the case, a longer period will be required. It should be recalled that the gradual transfer of the labour force from low-productivity occupations to others of relatively higher productivity is typical of development in Latin America. Consequently, a considerable proportion of the increments in *per capita* income is derived from this transfer. If average productivity increases at an annual rate of 1 per cent, the income of those already employed in activities with high productivity will rise less, and the recovery of the lost real income will therefore take longer.

In short, the high proportion of the inflationary increase in their profits used by entrepreneurs for consumption; the tension created by this increase of consumption, investment and income, which weighs heavily on the balance of payments; and the reaction of employees and workers in defence of their real wages, all make inflation a very dubious instrument for the promotion of investment. If such were not the case, the close relationship observed between the terms of trade and the investment coefficient over the last thirty years would undoubtedly not have existed. This does not imply, however, that in certain cases inflation may not have had favourable effects upon investment. But if this has happened, it has been at an extraordinarily high social cost, which once again shows the immediate incompatibility of the aim of accelerating investment with that of simultaneously raising the level of consumption of the lower-income groups.

III. INFLATION AND ANTI-INFLATIONARY POLICY

A. THE EXAMPLE OF CHILE

1. *The slow growth of Chile's economy*

(a) *The background to inflation.* Chile presents a conspicuous example of factors militating against a higher rate of growth. This situation is combined with a persistent and ever-spiralling inflation, which, far from stimulating development, tends to restrain growth by its disturbing consequences.

²² While the share of profits, interest and rentals in net income rose from 34.5 per cent to 51.0 per cent between 1939 and 1952, the proportion which the propertied sector invested rose only from 19 to 22.6 per cent of total available goods and services during the same period. See *Economic Survey of Latin America, 1951-52*, op. cit., p. 84.

²³ In section III of this chapter it will be seen how interesting is the case of Chile in this respect.

The present inflation in Chile is no recent occurrence, since it began during the great world depression of the 'thirties; it must be recognized that it did at that time provide a stimulus to the economy, enabling it to recover from the extreme contraction which it had experienced. But, as the recovery proceeded to absorb the productive factors which the depression had left unemployed, the price-wage spiral gradually gained an impetus which in recent times has acquired remarkable power.

The sustained effort by the public sector and by the different components of the private sector of the economy to redistribute a gross product which has increased very slowly is a peculiar feature of the situation in Chile; this circumstance makes the analysis of inflation extremely difficult. This type of inflation deserves some comment on two counts: the intrinsic interest of the facts involved and the current nature of the problem, which requires clarification.

An attempt will be made to describe, firstly, the adverse factors which caused the slow growth rate of the gross product, and, secondly, those which led to the inflationary spiral. The explanation will be brief, because the former theme has already been examined more than once in other studies. As regards inflation, only a brief general review of its main features will be given until such time as the results of an analysis of wider scope can be presented.

Why does Chile's economy develop so slowly? In this country, more than in any other in Latin America, the grave consequences of the great depression are still being felt, having added their weight to the effects of the structural crisis in the nitrate industry. In addition, the dynamic force of export activities has been very seriously undermined. Furthermore, despite an improvement during the last ten years, the terms of trade in Chile are very far from having recovered the level which prevailed before the depression of the 'thirties. During the last five years, the terms of trade were approximately 50 per cent lower than in the years 1925 to 1929. The combined action of these two adverse elements resulted in a capacity to import, so precarious that it did not allow the internal forces of growth, which are weak in themselves, to acquire a greater impetus.

This inadequacy of the internal forces has caused one of the lowest rates of investment in Latin America. And this slow rate has adversely affected that increase in productivity which is so essential if internal activities are to offset the stagnation of export industries with high productivity and to raise the level of *per capita* real income.

To this whole situation must be added those structural obstacles which hinder the development of agriculture and which have both strengthened the inflation and been reinforced by it. Moreover, not all branches of agricultural production appear to have received adequate incentives, and the slow growth of real income could not provide agriculture with that level of demand which is an essential condition of dynamic growth. Such is the background to the inflation that is causing so much anxiety in Chile, and whose main features will now be briefly discussed.

(b) *The gross product and per capita goods and services.*²⁴ The first subject to be considered must be the

rate of growth. During the last ten years, 1945-54, Chile's gross product has increased only at the same rate as that of demographic growth, or, around 1.6 per cent annually. In consequence, the average *per capita* gross product has remained constant. An interruption thus took place in the steady rise which had previously been experienced. As a result of its steady growth, the average *per capita* gross product at the end of the Second World War had already reached a level some 20 per cent above that of the five-year period before the great depression (1925-29). But since 1945 it has remained unchanged.

Nevertheless, these data alone would give a false impression of the intensity with which the average standard of living in Chile has risen in relation to the pre-crisis level. It should not be ignored that Chile's terms of trade had fallen to extremely low levels during this crisis, so that the share of the gross product from exports had to be exchanged for an import volume which is very much smaller than heretofore. This largely explains why, at the end of the war, although the *per capita* gross product exceeded that of 1925-29 by approximately 20 per cent, goods and services available *per capita* were 4 per cent less than during the previous period.

The acute inflation in Chile cannot be fully interpreted without attributing to this fact the substantial weight it brings to bear. Chile's efforts towards economic recovery were hampered by the presence of a combination of adverse external factors; so inadequate a volume of *per capita* goods and services could yield no positive nor lasting results in the inflationary battle for redistribution.

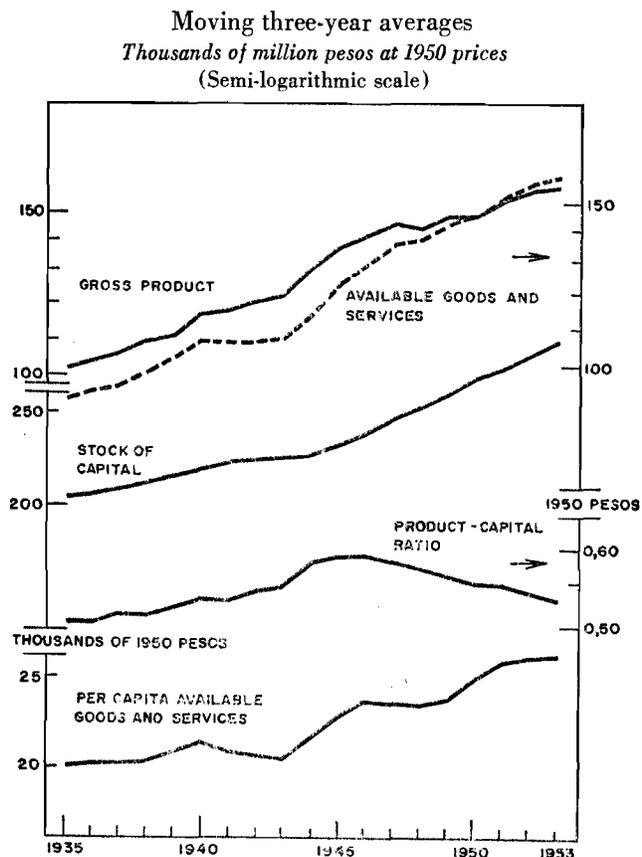
This has been one of the vital elements in the inflationary spiral and was already in full development when, after the war, the terms of trade once again improved, thus recuperating a little of the ground that had been lost during the great depression. It was then too late to relieve the inflationary pressure to any great extent. But the recovery did have significant consequences on the availability of *per capita* goods and services. Although the gross product has remained constant during the last decade, *per capita* goods and services have risen at an average annual rate of some 1.4 per cent, principally because of the improvement in the terms of trade. Thus, in the course of these ten years, for the first time goods and services available *per capita* have come to exceed the level of 1925-29, although only by a small margin, since in 1954 they surpassed the average for that period by barely 10 per cent.

After this over-all review, it may be inquired why the *per capita* gross product has remained constant, and has thus interrupted its previous steady growth. (See chart VI.)

Investment has been low, but not low enough to justify such a poor result, because capital stock has increased by 1.8 per cent *per capita* during the last ten years. It can clearly be seen in chart VI that the reason for the stagnation lies in the decline of the product-capital ratio. While the capital stock rose, the product per unit of capital fell steadily. (See also table 11.) As previously noted in section II of this chapter, this is by no means true exclusively of Chile. Aside from changes in the composition of the capital, which may have caused a lower product, the downward movement was partly due to the abnormal expansion of the product per unit of capital during the previous ten years (1935-44). This exceptional expansion was a result, firstly, of the recovery after the depression and, secondly, of the intensive use to which the capital was put

²⁴ All the information given here is derived from praiseworthy studies carried out in Chile. But there are many unknown facts which can only be revealed by far-reaching and systematic research. In the meanwhile, the statistical material given here must be considered as a first approximation.

Chart VI
CHILE: INDICES OF ECONOMIC GROWTH
DURING THE LAST TWENTY YEARS



during the war as a result of the shortage of capital goods. But in addition to this understandable recovery, the inadequate capacity to import must have unfavourably influenced the product per unit of capital for reasons which have already been given in section II.

(c) *Consumption and investment.* As noted earlier, despite the stagnation of the gross product, the goods and services available *per capita* have increased by 1.4 per cent annually during the last ten years. This result reflects in part the improvement in the terms of trade and in part a higher net inflow of foreign capital. Nevertheless, the incidence of these two favourable factors upon the standard of living has been less than might have been expected at first sight. In reality, *per capita* consumption of the private sector has increased only at the low rate of 0.3 per cent annually, that is, by 3.3 per cent accumulated over the ten-year period. It suggests that a very substantial share of the increment in goods and services has been absorbed elsewhere, or, in fact, by current government expenditure and by investment. Indeed, current expenditure rose by 3.6 per cent annually on a *per capita* basis. Although in 1945 it had represented 9.2 per cent of the available goods and services, in 1954—ten years later—it reached 10.4 per cent. *Per capita investment* also rose by 4.2 per cent annually.²⁵ (See chart VII.)

²⁵ These figures refer to aggregate gross investment, that is, they include changes in stocks, which consist mainly of copper, raw materials and products being processed by industry. If changes in stocks are excluded from investment, the *per capita* rate of growth falls to 2.6 per cent annually during the last ten years.

Table 11. Chile: Indices of economic growth during the last two decades

(Three-year moving averages)

Years	Gross product	Available goods and services	Capital stock	Product-capital ratio	Goods and services available per capita
	(thousand million pesos) ^a				
	(A)	(B)	(C)	(D)	(thousands of pesos) ^a (E)
1935.....	102.0	92.3	204.1	0.50	20.0
1936.....	104.0	94.4	206.0	0.50	20.2
1937.....	105.9	95.9	208.4	0.51	20.2
1938.....	108.9	98.0	211.2	0.51	20.3
1939.....	111.4	102.0	214.8	0.52	20.8
1940.....	116.8	106.6	218.6	0.53	21.4
1941.....	118.0	105.9	221.6	0.53	20.9
1942.....	120.8	106.0	223.5	0.54	20.7
1943.....	123.5	106.9	225.0	0.55	20.5
1944.....	131.2	113.7	227.4	0.58	21.5
1945.....	137.7	122.4	232.5	0.59	22.8
1946.....	140.9	128.8	239.8	0.59	23.7
1947.....	144.8	135.1	248.2	0.58	24.5
1948.....	144.6	136.8	256.5	0.57	24.4
1949.....	147.9	141.4	264.2	0.56	24.7
1950.....	148.9	145.2	272.6	0.55	25.0
1951.....	155.5	152.8	281.8	0.55	26.0
1952.....	157.8	156.5	292.0	0.54	26.2
1953 ^b	159.5	159.6	302.6	0.53	26.3

Sources and methods: Economic Commission for Latin America.

Col. (A): Figures for the 1950 gross product appearing in an unpublished study of the Corporación de Fomento were adjusted by replacing foreign sector statistics by ECLA calculations, on the basis of purchasing power parity rates in relation to the dollar. In the above-mentioned study, effective rates of exchange were used. For the years preceding and subsequent to 1950, the gross product was estimated by ECLA on the basis of indices of the production quantum, by sectors of activity, with 1950 weightings.

Col. (B): Gross product plus imports of goods and services minus exports of goods and services.

Col. (C): The figure for 1950 was calculated mainly on the basis of an unpublished study by Ewald Hasche S., *El Proceso de Capitalización en Chile, 1938-50*, University of Chile, Instituto de Economía, 1951. In this is shown the depreciated replacement value of fixed capital, by activities, for the period 1938-49. See the nature of the adjustments introduced into this figure in the *Economic Survey of Latin America, 1951-52*, not to Col. 7 of table 44, page 64. The 1950 figure was estimated for preceding and subsequent years on the basis of statistics for gross investment, calculated by ECLA, minus the depreciation, given as a fixed percentage for the whole period.

Col. (D): Col (A) divided by col. (C).

Col. (E): Col (B) divided by the total population.

^a At 1950 prices.

^b Provisional figures.

Despite the rise in investment, the coefficient remains relatively low. Chile presents the typical case of a country which has been unable to increase capital formation with its own resources, and if the investment coefficient has moved upwards to the extent previously indicated, it has done so as the result of foreign investment. This is clearly visible in chart VIII, where the effect of the terms of trade is compared with the investment coefficient as divided into its principal components. (See also table 12.) It should be noted that, during the last ten years, foreign investment, represented by the shaded area in the chart, has allowed the coefficient to rise. In contrast, the investment coefficient from domestic resources—excluding changes in stocks—varies around a constant level that corresponds to an average coefficient of 10 per cent of available goods and services

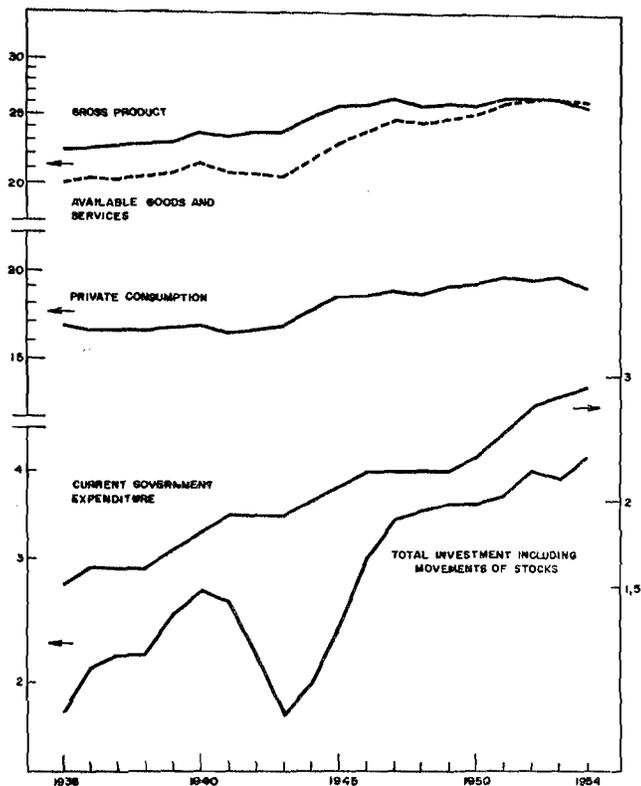
Chart VII

CHILE: RATE OF GROWTH OF THE GROSS PRODUCT, PUBLIC AND PRIVATE CONSUMPTION AND INVESTMENT

Moving three-year *per capita* average

Thousands of pesos at 1950 prices

(Semi-logarithmic scale)



during the last twenty-five years. This average gross coefficient represents a net coefficient of scarcely 4 per cent of fixed capital, and it is therefore not surprising that, over this period as a whole, the expansion of the *per capita* gross product has been so modest.

These fluctuations in the coefficient of investment from domestic resources are also clearly influenced by the terms of trade, although to a less pronounced extent in Chile than in Latin America as a whole. For example, the coefficient declined less than the terms of trade during the great depression and the Second World War, while it has risen less since 1945. Consumption has thus been the stabilizing element in such fluctuations of the investment coefficient, but in all of them the dominating effect has been that of the terms of trade, except during a short period immediately after the Second World War. At that time the use of foreign exchange accumulated during the war period, allowed the coefficient to rise rapidly and, after a short recession, once again followed the improvement in the terms of trade. Excluding this brief period, the inflationary factors do not appear to have raised the investment coefficient, but it is possible that they contributed to lessening its fall when the terms of trade declined. In that case they must also have been responsible for moderating the rise in the coefficient when the reverse took place.

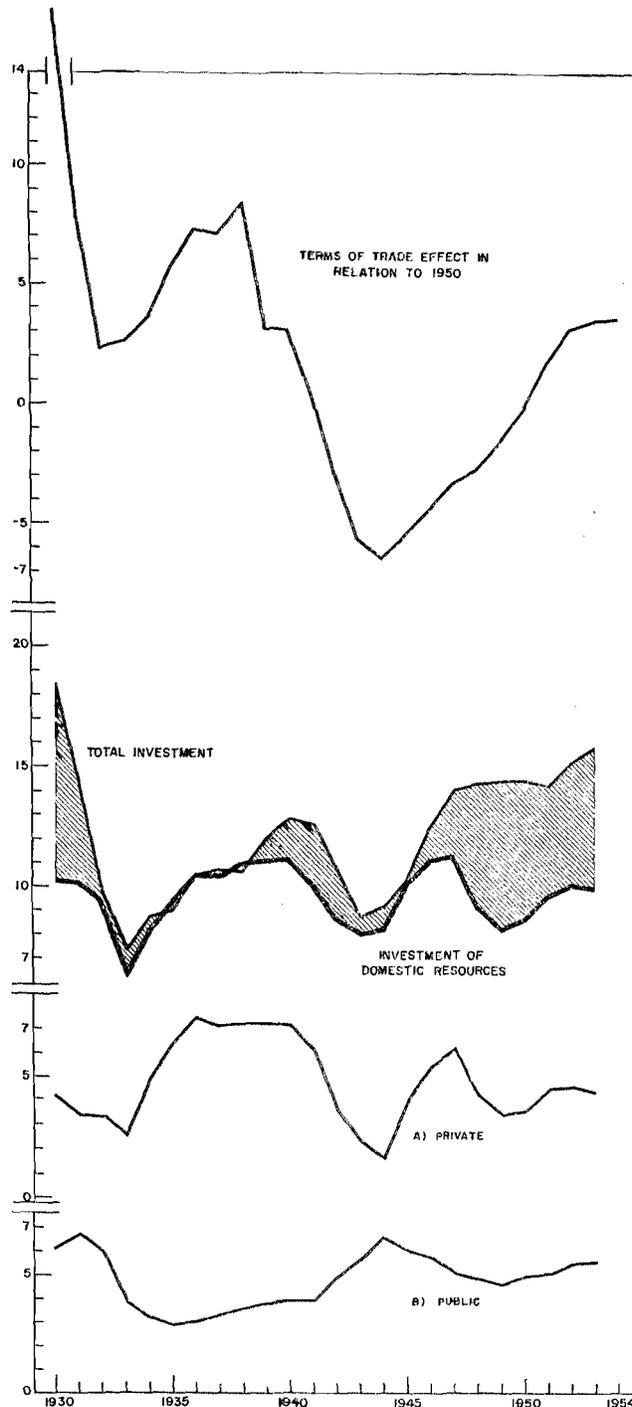
Chart VIII

CHILE: EFFECT OF THE TERMS OF TRADE ON THE INVESTMENT COEFFICIENT

Moving three-year averages

As a percentage of available goods and services

(Natural scale)



Before concluding this brief analysis of the behaviour of investment, the last two curves in chart VIII must be examined. The coefficient of investment from domestic resources is divided into its two principal components, namely, public and private investment. Their movement is usually in opposite directions; while the coefficient of pri-

vate investment rose rapidly after 1945, only to fall and rise once more, though to a limited degree, that of public investment has declined and has followed a slight upward trend only during the last ten years. In contrast, current government expenditure increased at a relatively vigorous rate, a factor which will be discussed in more detail at a later stage.

Table 12. Chile: Composition of investment and effect of the terms of trade

Years	Terms of trade effect in relation to 1950	Total investment	Investment with domestic resources	Private investment	Public investment
1930.....	16.4	17.9	10.3	4.2	6.1
1931.....	7.4	14.0	10.2	3.5	6.7
1932.....	2.3	9.9	9.4	3.4	6.0
1933.....	2.6	7.5	6.3	2.5	3.8
1934.....	3.6	8.8	8.1	4.9	3.2
1935.....	5.7	10.0	9.4	6.5	2.9
1936.....	7.3	10.8	10.5	7.5	3.0
1937.....	7.1	11.2	10.5	7.2	3.3
1938.....	8.3	11.5	10.9	7.3	3.6
1939.....	3.2	11.9	11.1	7.3	3.8
1940.....	3.1	11.7	11.1	7.2	3.9
1941.....	0.2	11.2	10.0	6.1	3.9
1942.....	-2.9	10.2	8.5	3.6	4.9
1943.....	-5.6	9.9	7.9	2.3	5.6
1944.....	-6.4	10.1	8.1	1.6	6.5
1945.....	-5.5	11.8	10.1	4.1	6.0
1946.....	-4.4	13.0	11.1	5.4	5.7
1947.....	-3.3	13.6	11.2	6.2	5.0
1948.....	-2.8	13.5	9.1	4.3	4.8
1949.....	-1.6	12.9	8.1	3.5	4.6
1950.....	-0.2	13.4	8.5	3.6	4.9
1951.....	1.6	13.4	9.5	4.5	5.0
1952.....	3.1	14.1	10.0	4.6	5.4
1953*.....	3.5	13.7	9.9	4.4	5.5
1954*.....	3.6	..	..	..	..

(Three-year moving averages as percentages of available goods and services, excluding variations in stocks)

Sources and methods: Economic Commission for Latin America.

Col. (A): See footnote ^b to table 15.

Col. (B): For the period 1940-52, basic figures of the Corporación de Fomento were adjusted by independent estimates, calculated by ECLA, of capital goods imports, evaluated in accordance with purchasing power parity rates. Similarly, ECLA estimates were substituted for statistics on investment in public works calculated by the Corporación de Fomento.

Col. (C): Calculated by deducting the inflow of private foreign capital and State utilization of external credit from aggregate investment.

Col. (D): Col. (C) minus Col. (E).

Col. (E): Calculated by ECLA, on the basis of official statistics.

* Provisional figures.

(d) *The distribution of the active population and the inadequacy of capital.* Chile would certainly have required a faster rate of capital formation to adapt itself more effectively to the structural changes suddenly imposed upon the economy by the great world depression. Before this crisis, Chile's exports emanated from industries with a labour productivity which was very high in comparison with that of domestic activities. At that time, the value of these exports accounted for about 29 per cent of available goods and services; in contrast, it now represents only 18 per cent. This is why the active population in mining—the main export activity—has declined. Consequently, this situation has obliged the increasing active population to

seek employment in internal activities where productivity, as pointed out above, was lower, and, since such activities have expanded very little, continues to be so. (See table 13.)

It should be noted that there is no contradiction between the assertion that the gross product per worker rose by 8.6 per cent between 1940 and 1952 and that the *per capita* gross product has remained constant during the last ten years, since this increase occurred only between 1940 and 1944.

What domestic activities have absorbed the increase in the active population? Table 14 gives the distribution. Although the labour force has increased at an average of 2.5 per cent annually, the numbers employed in agriculture have risen by barely 1.1 per cent, a process which is typical of all developing countries. In spite of the low rate of absorption of man-power in agriculture, there seems to be an appreciable excess of labour in this sector which could be eliminated by a more widespread application of the agricultural techniques already existing in Chile.²⁶ As regards increment in the labour force not absorbed in agriculture, it can be said that the numbers of the *gainfully employed* have expanded *more intensively* in personal services and in public administration—at annual rates of 3.9 and 4.2 per cent respectively—than in industry, building, public services and trade, where the growth rate was 3.1 per cent annually.

Table 13. Chile: Gross product per worker
(Thousands of pesos)*

	1940	1952
Mining.....	104.9	115.7
Agriculture.....	37.0	40.2
Industry and building.....	66.7	63.3
Other activities.....	83.0	87.7
TOTAL GROSS PRODUCT	65.1	70.7

Sources and methods: Gross product figures divided by the active population as estimated by the Corporación de Fomento de la Producción.

* At 1950 prices.

The greater rate of absorption in personal services and public administration largely arises from the inadequacy of the dynamic forces in Chile's economy to effect an increase in real income. The capital per worker required in these activities is small in comparison with what is needed in the other branches of the economy. At first glance it might seem that this increase in personal services is the same phenomenon as occurs in more-developed countries, where, as *per capita* income rises, the demand for highly-paid specialized services is very elastic. However, this does not appear to be the case in Chile, where poorly-remunerated personal services prevail and the surplus of labour that cannot be absorbed in other occupations of relatively higher productivity is thus concealed. Chile has, indeed, been unable to follow the pattern of the absorption of the labour force characteristic of advanced countries, owing

²⁶ See ECLA, *Análisis de algunos factores que obstaculizan el incremento de la producción agropecuaria en las provincias de Santiago y de Valparaíso, ensayo de investigación usando el método de muestreo estadístico*, April 1953, document E/CN.12/306, pp. 14 et seq.

Table 14. Chile: Active population
(Thousands)

Activity	1940	1952	Annual growth rate	Proportion to the total active population	
				1940	1952
Mining	98.6	92.2	-0.6	5.6	3.9
Agriculture	620.5	709.1	1.1	35.4	30.0
Industry and building, commerce and transport	623.4	900.1	3.1	35.6	37.9
Public administration	118.8	188.3	3.9	6.8	8.0
Personal services	290.0	476.9	4.2	16.6	20.2
TOTAL	1,751.3	2,366.6	2.5	100.0	100.0

Sources and methods: Figures taken from an unpublished study by the Corporación de Fomento de la Producción.

to inadequate capital resources. In the second place, although no claim is made that the weakness of this dynamic factor is the only explanation of the intensive growth in the number of public employees, especially as reflected in current government expenditure, there is no doubt that it plays an important role in this expansion. That part of the population, especially the middle class, which cannot find productive occupation in private economic activities, exerts a constant pressure on the public sector, which, therefore, by the force of circumstances, must fulfil a role of absorption of no minor social significance.

Nevertheless, in view of the stagnation of public investment during the last decade, the question arises whether part of the resources which covered the increment in current government expenditure could not have been used for increasing such investment. This is an interesting supposition. Certain types of public investment which have a low import coefficient can consequently expand in contrast with private investment, which, because of its high import content, is hampered by external obstacles. Further research is necessary to answer the foregoing question and, in addition, to account for the direct influence which a different policy might have had upon the real salaries of civil servants.

(e) *Capacity to import.* Herein lies another of the serious difficulties which impede the development of Chile's economy. In all the Latin American countries the capacity to import contracted substantially during the great depression. Subsequently, not only was the loss recovered, but the former level was even surpassed. During the five-year period 1950-54, Latin America's capacity to import rose to an annual average of 7.010 million dollars at 1950 prices, that is, 60 per cent more than in 1925-29. Unfortunately, the same was not true of Chile, where the average annual capacity to import during 1950-53 was 32,800 million pesos, which represents a decline of 40 per cent in relation to the annual average for the five-year period before the crisis. The fall is much more acute if it is related to available goods and services. Although during the first five-year period the capacity to import represented a considerable proportion of these (59 per cent), in 1950-53 it accounted for barely 21 per cent.

Two major factors are responsible for this substantial decrease, both in absolute and relative terms, in Chile's capacity to import: the stagnation of exports and the deterioration of the terms of trade. Table 15 offers very clear proof of these facts.

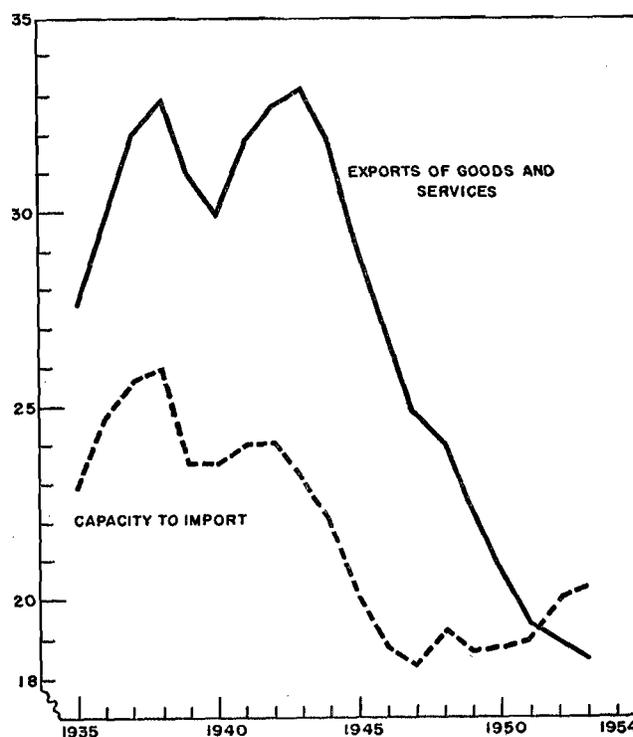
Chart IX

CHILE: EXPORTS OF GOODS AND SERVICES AND CAPACITY TO IMPORT

Moving three-year averages

As a percentage of available goods and services

(Natural scale)



The use of the term "stagnation" as applied to exports requires explanation. Stagnation would in fact appear to exist if the first and last five-year periods are compared. But if the intermediate period is studied, it is clear that exports, in the process of recovery after the depression, reached a much higher level than previously. (See chart IX.) During the last ten years, exports have shown a sharp and persistent decline, and if the capacity to import has improved slightly this has been due to the better terms of trade and to a greater net inflow of foreign capital during that period. (See also table 16.)

Table 15. Chile: Capacity to import in terms of exports and their relative prices

(Millions of pesos)^a

Periods Annual averages	Exports	The terms of trade effect in relation to 1950 ^b	Capacity to import ^c	
			Value	Percentage of available goods and services
1925-29	27,700	27,100	54,800	59
1950-53	29,200	3,600	32,800	21

Source: Economic Commission for Latin America.

^a At 1950 prices.

^b Profit and loss arising from variations in the terms of trade in relation to 1950. It is defined as a product of the export value at 1950 prices by variations in the terms of trade index in relation to that year.

^c For lack of complete data, the net inflow of capital has been excluded.

Table 16. Chile: Exports of goods and services and capacity to import

(Three-year moving averages as percentages of available goods and services)

Years	Exports of available goods and services	Capacity to import
1935	27.4	22.8
1936	29.7	24.8
1937	31.9	25.7
1938	32.9	26.0
1939	30.9	23.5
1940	29.9	23.5
1941	31.8	24.0
1942	32.8	24.1
1943	33.2	23.2
1944	31.8	22.0
1945	29.2	20.1
1946	26.6	18.8
1947	24.8	18.3
1948	24.0	19.2
1949	22.3	18.7
1950	20.6	18.8
1951	19.4	19.0
1952	18.9	20.0
1953 ^a	18.5	20.3

Source: Economic Commission for Latin America.

^a Provisional figures.

The slight increase in the capacity to import has been inadequate to solve the serious problem which Chile is now facing. There is an acute tension in the balance of payments, and foreign exchange proceeds are sufficient to cover only the most urgent current needs, leaving no margin for the importation of capital goods.²⁷

It has already been stated that this is mainly a consequence of adverse external factors, over which Chile has no control. The question arises, however, whether all possible efforts have been made in the national sphere to offset to some extent the impact of these factors on exports. This point has been the subject of considerable controversy and its treatment here should thus be as objective as possible. The present situation may be attributed to two distinct

factors: the special problems connected with the main Chilean exports, copper and nitrate; secondly, exchange and price policies.

The share of Chilean nitrate in world consumption is steadily declining, owing to its displacement by synthetic products. Copper, in addition to being a strategic material, is subject to important governmental decisions; its strategic nature induced the United States Government to establish a maximum price during the Second World War, and the Chilean Government, recently, to agree to limit its sales to specific markets. The latter also receives an important share of the value of copper exports, through taxation and exchange earnings. This must be placed in its proper perspective. In former periods, the proportion of the value of copper exports which was incorporated into the Chilean economy was actually very small: barely 22 per cent in 1928, for example. By means of fiscal measures and salary increases, it became possible for Chile to retain a growing proportion of this value, amounting to about 75 per cent, during the last three years. The incidence of this factor on the profits of the copper companies is probably one of the main reasons why they have sought other fields for investment. When the Korean War caused a copper shortage, these enterprises, like other copper-mining companies elsewhere, preferred investment in marginal mines in the United States—where they could obtain better returns for their capital—to increasing Chilean output; these marginal mines currently produce about 300,000 tons annually, while output of the large mining companies in Chile has stood at an average of 350,000 tons during the last three years, and is estimated at 408,000 tons for 1955. The Chilean Government has recently revised its copper policy. The possible effects of this measure on future exports and on the degree of utilization of productive capacity, at present not fully employed, will be discussed elsewhere.²⁸

The value of copper exports is limited by the ceiling price established by copper-mining companies in the United States, with the aim of preventing aluminium or other metals which are more suitable for certain purposes from replacing copper when the relative prices are favourable. To what extent will the present price policy contribute to maintaining future copper markets?

The exchange profits derived from copper and nitrate are used to subsidize imports of essential commodities. The remaining Chilean exports are subject to rates of exchange which do not follow a course parallel to the inflationary rise in wages and other costs. A few exports are given special treatment; in order to protect consumers, relatively low exchange rates for imports which affect the level of popular consumption have been established, and this has undoubtedly tended to discourage certain exports, while yet others are restricted with a view to preventing shortages on the domestic market.

It cannot be denied that such measures for the protection of the consumer have generally produced the immediate effect desired. But the question might well arise as to whether agriculture has not been deprived of one of its most important incentives to expansion by this weakening of the stimulus of external demand. Not only do the structural difficulties already mentioned hamper agricultural

²⁷ See part II, chapter V.

²⁸ See chapter IV, section II (Mining) of part I of this volume, and chapter V of part II.

development in Chile,²⁹ but also the narrow rise in Chilean income has helped to lessen the increase in the real demand for agricultural commodities.³⁰ A more active external demand might have encouraged a better utilization of Chilean agricultural areas and eased external payments pressures.

It will be seen later that, in Chile, emphasis is also laid on the possibility of creating new exports.

(f) *Import substitution.* It should be recalled that the instability of exports has induced Chile, as well as other Latin American countries, to give priority to import substitution. There is no doubt that, if positive steps were taken to reduce this instability, it would be much easier to continue the simultaneous encouragement of import substitution and of exports.

Import substitution seems to have progressed in the sphere of industry more than in that of agriculture. Chile imports about 12 per cent of its wheat, and 15 per cent of its meat requirements. Wheat has been subject to a policy of establishing prices which, although they follow the course of inflation, do not seem to have been fixed at the opportune moment. Since the possibilities of increasing the area under wheat are limited, the key to expanding production seems to lie, according to experts, in the contribution which genetics can make to improving yields. Specialists have also pointed out that research and technological improvements to raise the grazing capacity of pastures are indispensable to increasing meat production. They also agree that a continuous and steady policy favouring the development of the livestock industry should be an adjunct to these measures.³¹

2. Evolution of the inflationary process

(a) *Inflation and the decline in real income.* It has already been noted that Chile's inflationary process had its origin in the world depression, when the public sector and the different groups comprising the private sector of the national economy began the struggle to maintain their former share of a real income which had declined sharply. Inflation was in fact the only available instrument to raise the level of Chilean economic activity from its cyclical depression. But once the impulse towards recovery has been given, the final success of an expansionist policy must depend on the point at which it stops. In effect, once most unemployed factors have been utilized and investment has developed as far as the capacity to import permits, inflation becomes vicious, since, instead of bringing about a substantial increase in gross income, it turns into the familiar price-wage spiral.

From the outset, this struggle was characterized in Chile by the appearance of a relatively new element in Latin

America, namely, trade unions of workers and employees to defend real wages. Inflation was traditionally used by the Government and entrepreneurs as a means of obtaining a larger share of the community's real income. And if, as so often happened, this purpose was achieved, it was mainly at the expense of the proportion of income which should have gone to wage-earners, or of the greater share they should have received from the general increase in productivity. This has occurred, and is still taking place, in some Latin American countries where no labour organization exists strong enough to defend wages during the course of an inflation. In other words, the extent of the redistribution of real income that such a process involves depends on the power of an organization of this nature which, in Chile, was reinforced by a special feature of the economy. Already, in the late 'twenties, only about 40 per cent of the labour force was employed in agriculture, against the high proportion of 65 per cent prevailing in most of Latin America at that period. The fact that the steady flow of cheap labour from rural to urban areas was less intensive in Chile than in other countries contributed to strengthening trade unions. Furthermore, organized labour was able to avoid the depressive influence that might have been exerted on wages by marginal urban groups, whose power to defend themselves from inflation is somewhat precarious.

Thus, the traditional aptitude of the public sector to obtain an increasing share of real income from the private sector, and of entrepreneurs to increase their profits by inflationary means, met opposition from the trade unions which strove to defend and raise wages and salaries.

When the real income of the community as a whole has not decreased and inflation has resulted merely in a redistribution of income at the expense of the working population, the recovery of the ground lost by the latter presents no serious difficulty. But when real income has in fact contracted, the struggle to return to the former position results in the price-wage spiral. In Chile, this spiral seems to have originated in the great vulnerability of the economy to external fluctuations and contingencies.

This does not imply that the spiral was inherent in such events nor that it is the inevitable outcome of an expansionist policy aimed at stimulating the economy; but such a policy does unleash forces which are then difficult to control even though a satisfactory level of real income may have been attained.

It is not the purpose of this chapter to discuss these phenomena—interesting though they may be—but to explain the nature of inflationary forces, in order to provide a better idea of the character and complexity of the pressures they cause and which are tending to become more acute at present.

(b) *Elements which foster the inflationary spiral.* Without question, the public sector has played and continues to play an important role in the spiral. The impact of the depression on that sector was very violent. Suffice it to recall that, in 1929, 58 per cent of government revenue accrued from sources directly affected by external factors; this proportion dropped to 27 per cent in 1932. The maintenance of government expenditure at a higher level than revenue resulted in a fiscal deficit which at least had the virtue of stimulating the reabsorption of unemployed productive factors by the economy.

²⁹ See footnote 25 to this chapter, on page 24.

³⁰ See *Economic Survey of Latin America, 1949*, document E/CN.12/164/Rev.1 (United Nations publication, Sales No.: 1951-II.G.1), pp. 289-290.

³¹ All this would require additional investment, which Chile can only make to a very limited extent. The Government has adopted an agricultural plan—sponsored by the International Bank and FAO—aimed at giving Chilean farmers the resources and technical aid they need. But it should be recalled that, apart from those difficulties hampering agricultural production, there are structural problems, and it is therefore logical to wonder how far such development measures will give the expected results, if no effort is made to remove the obstacles that prevent a more adequate and efficient use of available land.

Clearly, the inflationary expansion caused by the deficit was bound to raise both prices and the profits of entrepreneurs; this, in turn, should have been followed by efforts to adjust salaries and wages to the higher price level. However, such adjustments might conceivably have been effected without a further increase in prices. There is no reason for prices to rise so long as the increase in salaries and wages can be, and in fact is, absorbed by the entrepreneurs' profits. Higher wages merely correct the distortion in the distribution of real income. But if, instead of drawing on their profits, entrepreneurs are able to obtain bank credits to pay the higher wages, prices inevitably rise still further and the increment in salaries and wages is thus dissipated. This is a possible origin of the spiral, though not the only one.

In the case of Chile in the early 'thirties, even if wage adjustments had been effected at the expense of profits, it would have been impossible for real wages to regain their pre-crisis level, while the *per capita* availability of goods and services remained lower than before, as has been the case until very recently. A further impetus is given to the spiral by the understandable endeavour to recover previous levels of remuneration, since wages and salaries rise higher than profits permit, and entrepreneurs are therefore obliged to resort to inflationary credit expansion.

There is also the possibility that entrepreneurs, having used their profits to adjust wages, may have recourse to the banking system to seek new credit for investment. If profits have been so curtailed that there is no margin for investment, any expansion of bank credit for this purpose will necessarily be accompanied by a rise in prices and increased profits. The restraint of the spiral will then depend on whether or not the pressure of further increases in wages and salaries is brought to a halt. And it is difficult to relieve such pressure when real wages are lower than before, because goods and services available *per capita* have also decreased.

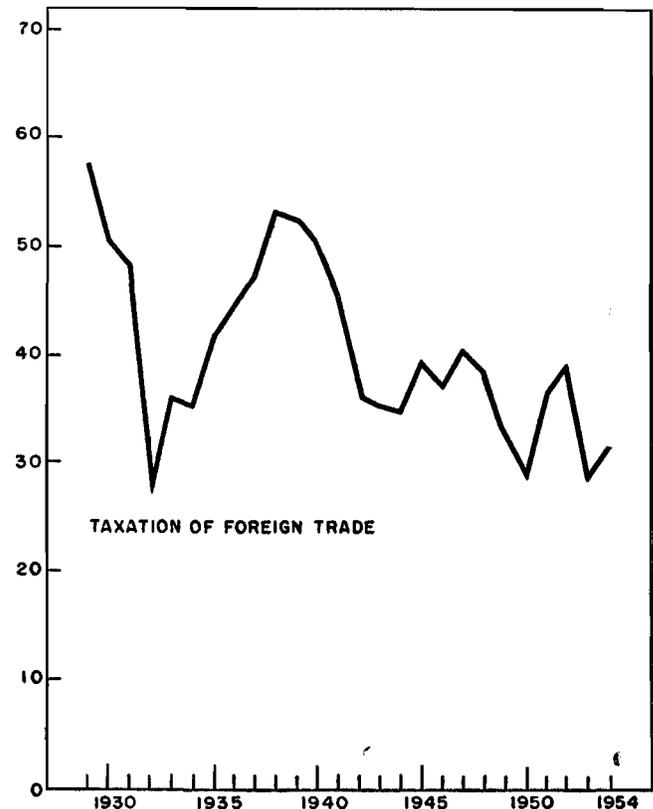
Price and wage increases are inevitably followed by monetary devaluation. This may be postponed in periods of foreign exchange ease, but only to become more peremptory when foreign accounts deteriorate. In its turn, devaluation creates the need for new wage adjustments, thus giving further impetus to the spiral.

It is difficult to assess how and in what measure these various elements of the inflationary spiral have combined in Chile since the depression of the 'thirties. But it seems safe to assume that the budgetary deficit has frequently contributed to amplifying the process. To form some judgment, however, the dependence of the public sector upon revenue subjected to the action of external factors must once again be recalled. It is true that during the last ten years the proportion of public revenue accruing from this source has declined considerably, reaching an average of 35 per cent, in contrast with the high level attained many years ago. (See chart X.)

Nevertheless, the fluctuations which constantly affect the share of public revenue directly influenced by external factors are an element of great instability which usually, although not inevitably, lead to deficits. In effect, the fortuitous rise in this revenue when external factors are favourable, generally results in an increase in public expenditure; and the difficulty of restricting this, when the reverse occurs, leads to either a larger deficit or heavier taxes. The inflationary consequences of the deficit need no

Chart X
CHILE: COMPOSITION OF AGGREGATE
STATE INCOME

Percentage of aggregate taxation revenue
(Natural scale)



emphasis; as to the second alternative, heavier direct taxation would have no inflationary effects. But the extent to which the burden of indirect taxation has increased in the course of Chile's fiscal evolution makes it questionable whether heavier indirect taxes aimed at reducing the deficit have not introduced a fresh inflationary pressure. This type of taxation mainly affects the lower-income groups, who seek to increase their wages to offset the additional tax burden, and thus added impetus is given to the price spiral.

Undoubtedly the budgetary deficit has been largely responsible for accelerating the rate of inflation, particularly in recent years; the annual percentage rise in wholesale prices is far greater than the increment in the aggregate money supply directly attributable to the credit expansion resulting from the deficit. (See table 17). There is thus a marked difference in the incidence of the deficit on prices and their actual rise, which can only reflect the strong inflationary pressure originating in the private sector of the economy.

This observation on the deficit is linked with another aspect. The subsidy granted by preferential exchange rates to certain basic consumer imports plays an important role in Chile's fiscal policy. This policy has brought considerable relief to the consumer, part of which must have been nullified by the price rises incident on the budgetary deficit. The topic will receive more detailed consideration at a later stage.

Table 17. Chile: Money supply, increase in bank credit to the Government and intensity of the increase in prices

Years	Money supply at beginning of year	Variation in bank credit to the Govern- ment on 31 December		Annual variation in the wholesale price index
	(millions of pesos) ^a	(percentages of money supply at beginning of year)	(percentages of money supply at beginning of year)	
1945.....	6,823	..	..	..
1946.....	8,028	656	8.2	21.3
1947.....	10,005	603	6.0	27.1
1948.....	12,878	-62	-0.5	16.0
1949.....	16,234	406	2.5	12.8
1950.....	19,659	759	3.9	17.4
1951.....	20,296	951	4.7	30.8
1952.....	27,123	3,830	14.1	24.0
1953 ^b	35,701	5,410	15.2	22.1
1954 ^b	54,160	4,383 ^c	8.1 ^c	57.0

Sources: Economic Commission for Latin America, on the basis of official publications of the Banco Central de Chile.

^a At 1950 prices.

^b Provisional figures.

^c Increase up to 31 November 1954.

This is by no means the only form in which external factors act upon the inflationary process in Chile. Fluctuation in the terms of trade perceptibly affect not only the public but also the private sector. When the terms of trade improve, the rise in export prices is usually accompanied by a smaller increase in those of imports. The resulting rise in the internal price level brings in its wake the need to adjust wages. But this in itself need not aggravate the spiral if, as has been previously explained, the increase in wages is limited to the amount that can be absorbed by the additional profits directly or indirectly accruing from the improvement in the terms of trade. On the other hand, the real wage level could not be maintained if there were a deterioration in the terms of trade, and the understandable effort to do so necessarily intensifies the spiral.

To all these driving forces behind the price-wage spiral, must be added another of increasing importance, namely, the growing ability of groups in the rear guard of the inflationary process to obtain wage readjustments. In the early stages of the spiral, there are vast social groups which are not marshalled for defence, and whose salaries and wages, therefore, do not keep pace with the rise in prices. It is precisely the delay in these readjustments which enables other, better organized, groups to obtain—at a given moment—real wage increases higher than they could otherwise have achieved, in view of the goods and services available. But as the less-favoured groups become organized and react more speedily to the rise in prices, the rate of inflation is necessarily accelerated, unless there is a substantial improvement in the *per capita* availability of goods and services. What actually happens is that if the groups lagging behind take speedier action, they provoke new price increases which, in their turn, cause an immediate reaction on the part of those groups which were better organized to begin with, and so on indefinitely.

Although all groups in Chile cannot yet be said to have achieved equal initiative and capacity for defence, the differences are being eliminated. There are groups, such

as retired employees, which in other countries are among the most serious victims of inflation. In Chile, however, they have been able to keep up with the rise in prices by virtue of recent laws for the adjustment of pensions in accordance with the fluctuations in the cost of living.

In the analysis of inflation in Chile, it would be of interest to comment upon the role of the Government in the process of readjustments for the different social groups, and the extent to which these readjustments have affected the spiral. In this connexion, it is worth while considering the significance and consequences of the over-all 20 per cent increase in wages during 1939.³² Was it a mere readjustment which could be absorbed by the profits of the entrepreneurs? The 15.7 per cent rise in wholesale prices which occurred in the subsequent year would seem to indicate that to a large extent the wage increase helped to intensify the spiral, were it not that import prices began to rise at that same juncture, through the outbreak of the Second World War.

Finally, it would be difficult to say at present what part has been played in this spiral by entrepreneurial investment financed with bank credits. To judge by the low investment coefficient, its concrete results have been extremely limited.

All these elements of inflationary pressure act on a volume of available goods and services which fluctuates continually around a slowly rising trend. It is evident that in the course of these fluctuations, any increase in the available goods and services caused by external or internal factors tends to relieve the pressure, while any decrease tends to magnify it. These inflationary elements, however, have such force, in comparison with the yearly fluctuations of goods and services, that they necessarily prevail over the latter as determinants of the rate of price increases, except when the changes in international prices exert a direct influence.

(c) *The effect of inflation on the distribution of available goods and services.* This outline of the mechanism of the inflationary process should be followed by an examination of its effects on the distribution of available goods and services. For this investigation, a wealth of statistics would be required which do not, as a rule, exist in Latin America. Fortunately, in Chile's case, since 1940, the Corporación de Fomento de la Producción has compiled statistical series of great value, which have permitted the preparation of the data presented in table 18 and chart XI.³³ It was thus possible to divide the available

³² Salaries do not seem to have risen at the same rate; the minimum salary in Santiago rose by only 6 per cent between 1938 and 1939.

³³ Estimates on the basis of series for real net income at factor cost, calculated by the *Corporación de Fomento de la Producción*. The procedure was as follows:

1. The series, formerly given at 1940 prices, were converted to 1950 prices by shifting the base year of the price indices used by CORFO.

2. The resulting series were grouped into three large categories: (a) salaries; (b) wages, and (c) property income, profits, interest and rentals.

3. In order to obtain disposable income from the data on net income at factor cost, direct taxes were deducted from each of three series mentioned above. The direct taxes were calculated by reclassifying official statistics and by making some imputations. Transfer payments to workers and employees arising from employers' contributions to social security institutions were added to

(Continued on following page)

goods and services into the following four categories: (a) profits, rentals and interest; (b) wages; (c) salaries; and (d) direct and indirect taxation.

During the whole of the period the share of wages tends to decrease persistently. It might be thought that this decline was accompanied by an increase in the share of profits, as has usually taken place in the traditional in-

flationary process in Latin America. But this has not occurred: the proportion both of profits and of rentals and interest also declined, and it is only since 1950 that this downward movement in category as a whole appears to have been arrested. Unfortunately, no figures later than those of 1952 are available to provide an understanding of the recent course of these events.

Table 18. Chile: Disposable personal income, by type of remuneration

Years	Disposable income	Salaries	Wages	Gross profits, rentals and interest	Salaries	Wages	Gross profits, rentals and interest
	(millions of pesos)*			(percentages of available goods and services)			
1940.....	105,166	14,006	27,109	64,051	13.3	25.8	60.9
1941.....	111,442	16,088	27,441	67,913	14.6	25.0	61.8
1942.....	107,116	16,205	24,858	66,053	15.8	24.2	64.4
1943.....	113,357	18,007	27,117	68,233	17.1	25.7	64.6
1944.....	120,600	19,204	29,783	71,613	17.1	26.5	63.7
1945.....	129,919	20,671	31,736	77,512	16.8	25.8	63.0
1946.....	131,829	20,754	32,329	78,746	15.8	24.6	59.8
1947.....	128,200	21,469	30,411	76,320	16.3	23.1	57.9
1948.....	139,571	22,115	33,752	83,704	15.6	23.8	58.9
1949.....	128,177	21,047	30,867	76,263	15.4	22.6	55.8
1950.....	138,714	25,448	32,472	80,794	17.5	22.3	55.5
1951.....	143,731	25,413	33,098	85,220	16.6	21.6	55.6
1952.....	148,374	27,824	32,137	88,413	17.4	20.1	55.4

Sources and methods: See footnote 33 of text.

* At 1950 prices.

In contrast, salaries as well as direct and indirect taxes have increased their share in the total. It is impossible to say whether the increase in the proportion of salaries in aggregate available goods and services is, or is not, a reaction to a deterioration which might have occurred before 1940. But in any case, it demonstrates the strength of employees in the inflationary struggle.

It was explained at an earlier stage that the current expenditure of the Government had increased; the counterpart of this will be seen when public revenue is discussed.

Given the small increment in available goods and services and the decline in the share of wages, it would not be too rash to assume that there has been no significant increase in real wages in Chile—if in fact there has been any at all—during the thirteen years covered by the statistics. It might well be inquired how the small annual increment of 0.3 per cent in private consumption has been divided between average wages and salaries.

The small annual increase in private consumption of certain groups of wage-earners has not improved their real income, either owing to the nature of their work or on account of more effective trade union action. In any case, if this has taken place, it will have been at the expense of other groups whose real wage may even have declined considerably. A similar situation might also have taken place in the case of salaries. At all events, this is

(Continued from previous page)

wages and salaries. Depreciation charges of the capital stock were added to profits, interest and rentals; thus the gross disposable income of this sector was obtained.

4. Finally, the figures for each of these three categories were expressed as a percentage of total goods and services available for consumption and investment.

Chart XI
CHILE: DISPOSABLE PERSONAL INCOME
Composition as a percentage of aggregate available
goods and services
(Natural scale)

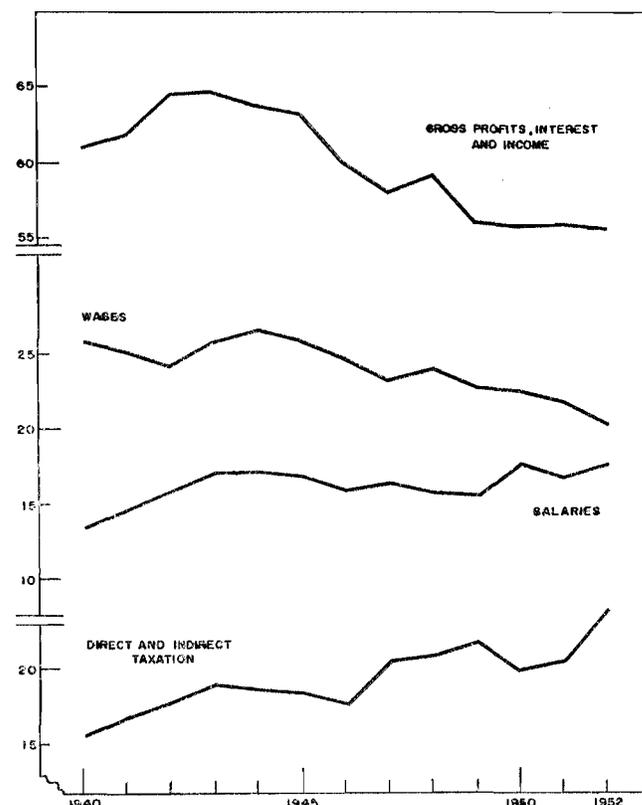
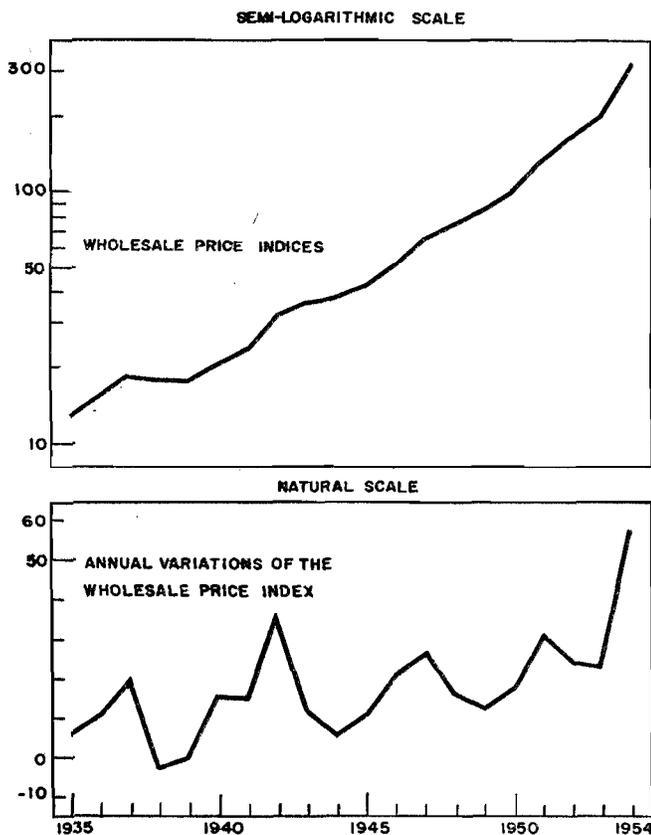


Chart XII

CHILE: RATE OF INCREASE OF WHOLESALE PRICES



a characteristic of the inflationary process, which always involves such inequalities.

Perhaps these distortions may help to explain the changes in the intensity of the inflation, measured by the rise in wholesale prices. In the upper diagram of chart XII, which is on a semi-logarithmic scale, it can be seen that the pace of inflation has tended to accelerate during recent years; the lower diagram, which is based on a natural scale, shows the annual variations in the wholesale price index. The continual fluctuations in the latter curve should be noted; a sharp upswing in prices is followed by a more moderate increase, which in turn is succeeded by a stronger upward movement. (See also table 19.) There are undoubtedly several factors which contribute to this situation and one of them might be the disparity in the ability of the different groups to protect themselves or to take the initiative. The pressure of the stronger groups might well cause a very intensive rise in prices in a given year; the following year, the upward movement might be relatively moderate because it happened to be the turn of the groups which were less well equipped to defend themselves. Nevertheless, this is a mere conjecture and it is to be hoped that when statistics of real wages become available a better understanding of these phenomena may be possible.

3. The present problem

(a) *The seriousness of the problem.* Chile is facing a situation the gravity of which is recognized by Govern-

ment and public opinion alike. In the foregoing pages, an attempt has been made to clarify the essential features of the interaction of those forces which have led to the present situation. The time has come to define the form in which the problem of inflation now presents itself, since this situation has attained such proportions that it is no longer a matter of concern to Chile alone. In the context of an international co-operation policy, the significance and scope of Chile's inflation is also a matter of interest. To conclude these observations, an examination of the basic elements of the problem is fully justified. An attempt will be made to analyse three closely related aspects: the elimination of inflationary pressure, external equilibrium and the correction of instability.

In solving the problem these aspects cannot be considered individually. Events have clearly shown that failure might result from any partial solution. The difficulty which Chile faces is no isolated matter of stabilizing prices and wages, or of monetary or fiscal policy. Nor is it a question of investment, or of exchange or price policy, or of encouraging exports and restricting imports. Chile's problem includes all these diverse elements, but the over-all scene is dominated by one vital fact. It has been stressed

Table 19. Chile: Intensity of the rise in prices

Years	Wholesale price index	
	(1950 = 100)	Annual variations
1935.....	13.8	6.1
1936.....	15.3	10.9
1937.....	18.3	19.6
1938.....	17.8	-2.7
1939.....	17.8	—
1940.....	20.6	15.7
1941.....	23.8	15.5
1942.....	32.3	35.7
1943.....	36.1	11.8
1944.....	38.1	5.5
1945.....	42.2	10.8
1946.....	51.2	21.3
1947.....	65.1	27.1
1948.....	75.5	16.0
1949.....	85.2	12.8
1950.....	100.0	17.4
1951.....	130.8	30.8
1952.....	162.2	24.0
1953.....	199.4	22.9
1954.....	313.0	57.0

Source: Servicio Nacional de Estadística, Chile.

that the present state of Chile's inflation in fact arises from a struggle over the distribution of the volume of *per capita* goods and services; this volume was drastically reduced during the world depression, and after recovering the lost ground extremely slowly, has continued to expand at a very modest pace. It would therefore be inadmissible to effect an arbitrary separation of the treatment of inflation from the urgent need to accelerate the rate of Chile's economic development. Thus, in addition to the three related aspects mentioned above, some final considerations relating to this last point will be presented.

It should be repeated that the following paragraphs merely outline the form taken by the problem of Chile's

inflation. They in no way constitute specific recommendations for its solution, but rather an objective analysis of its nature and scope. Furthermore, this initial treatment neither affirms nor denies the suitability of the alternative courses of action mentioned below, since this would involve entering an alien sphere where political factors are usually more important than technical considerations. Finally, it would be out of place to express a premature opinion as to whether it is, or is not, politically possible, timely or advisable to undertake this or that anti-inflationary policy.

(b) *Internal inflationary pressure.* This pressure mainly arises from three sources: i) employees and workers; (ii) the Government, and (iii) entrepreneurs. It manifests itself in a persistent excess of monetary income over the volume of available goods and services. The problem therefore consists in gradually reducing this excess until the pressure is removed.

(i) *Employees and workers.* Within the limited resources of the Chilean economy, it might be inquired how the redundant monetary income in this sector can be eliminated. The mention of any one method does not imply recommendation of it or of its possible combinations; all that is intended is to call attention to an essential feature of the problem. If pressure from this sector is not eliminated, the spiral cannot be arrested, however satisfactory the action taken in the other sectors may prove. Similarly, neglect of the other sectors and a concentration of the whole anti-inflationary effort in the wage-earning sector might equally well defeat its own ends.

In the first place, would it be possible to avoid new increases in salaries and wages unaccompanied by an equivalent rise in productivity or in the terms of trade? This type of stabilization of salaries and wages would present considerable practical difficulties. If at any given moment in the inflationary process the earnings of the different groups of workers and employees are analysed, wide discrepancies will be observed: in relation to a particular point of reference, some groups will recently have obtained increments in wages which are higher than the rise in prices; the position of others will not be far from equilibrium; and the remainder will have been left behind. It is only natural that this last group should resist a stabilization policy which for the moment will cut them off from all hope of regaining lost ground. Nor is such a procedure welcomed even by those groups which are in a favourable or relatively satisfactory situation, since they hope to achieve further increases which will raise their real income. Finally, all are afraid that wage stabilization may not be followed by price stability.

Should the answer to the first question be negative, a second might be formulated: could increases in salaries and wages be granted only to those groups which have lagged behind, until the various groups had been brought into line? Clearly, such increments would bring about a further rise in prices, the intensity of which would gradually lessen until the process came to an end altogether. This would only occur once the proper relation between the groups had been reached, and providing that there was no reaction from the more advanced groups and no inflationary influences continued to be active in other sectors. If these conditions were not fulfilled, such an operation would prove illusory and perhaps impracticable. The rise in prices due to the readjustment in the wages of the

least-favoured group will determine a fall in the real earnings of those other groups which have not obtained increments because of their previous relative position. If the inequalities existing at any given moment are not to be consolidated, can some different solution be found to improve the lot of the third group, without detriment to those who are in a better position in the inflationary spiral? Would this be feasible, given the present state of affairs in Chile, where, with a few special exceptions, even the more-favoured groups have only a precarious real income despite their situation?

Reference has been made to a satisfactory relationship between salaries and wages. If inflation in Chile were a recent phenomenon, it could be assumed that such a relationship existed during a representative period in the past;³⁴ but as, in the present case, such an assumption appears hazardous, the relative position of the diverse groups engaged in the inflationary struggle would have to be established. And this is by no means an easy task in view of the various conflicting interests involved.

If no affirmative reply to the second question were forthcoming, a third might now be posed. Would it be admissible to make adjustments in salaries and wages in inverse ratio to their size? A given date in the past might be taken as a point of reference and increments equivalent to the entire amount of the rise in prices might be granted to the lower salary and wage categories. The higher the salary or wage, the smaller would be the adjustment. The average wage increase would thus be inferior to the average rise in prices, since the higher the remunerations, the larger the share of the inflationary pressure they must absorb. To the extent to which this absorption takes place, pressure will gradually decrease and the rise in prices will slow down until the spiral comes to an end.

The mere formulation of such questions suffices to indicate the extreme difficulty of eliminating inflationary pressure in this sector. It would be out of place to offer any answer to them here, but it can be asserted that some kind of positive solution is indispensable if the inflationary spiral is to be halted. The income that can be redistributed is very modest and is unlikely to increase substantially over the short term, except through unforeseen circumstances. Any corrective measure must necessarily involve greater privation for some than for others. No progress can therefore be made unless the different social groups are willing to collaborate in sharing, as far as they can, the sacrifice required to put an end to the inflationary process. A later reference will be made to the part that must be played in this sacrifice by the higher income groups.

³⁴ In this sense, the implementation of the stabilization programme brought into force by the United States during the war was facilitated by the existence of points of reference in the near past. It should be recalled that in the United States also a considerable inflationary pressure was caused, on the one hand, by the full employment of labour and capital, and, on the other, by the very high proportion of the product which had to be devoted to war purposes. Nevertheless, prices rose by barely 14 per cent during the emergency (1942-45). The successful control of inflation may be attributed to two factors: firstly, to the efficiency of the administrative mechanism for price, wage and profit controls; secondly, to the fact that incentives to invest and to expand production were maintained despite the heavier burden of taxation. Hence the exceptional post-war level of consumer demand, which was the result not only of the rise in real income but also of the improvement in its distribution.

If all this proved to be true, it would confirm that the solution is not one that can be provided by monetary measures, however effective they may be. In so delicate a problem of human relationships, the role of politics may perhaps be much more important than that of the technical drafting and implementation of a stabilization programme.

(ii) *The public sector.* It is self-evident that if the expansion of credit provoked by the budgetary deficit is not checked, any endeavour to eliminate the inflationary pressure arising from the sector of workers and employees would be useless, and perhaps would defeat its own ends. There are three classic expedients and combinations thereof, to reduce the deficit or balance the budget: a curtailment of expenditure, an increase in taxation, and borrowing. How could these measures be applied to Chile?

The contraction of expenditure gives rise to the widespread fear that it might have depressive effects upon the economy. In fact, this has been the recent experience of certain Latin American countries. Whether such effects are inevitable depends upon the practical possibility of adopting a compensatory policy aimed at offsetting the reduction in public expenditure. Clearly, in so far as this cut in expenditure concerned government purchases and in so far as it was not neutralized by greater private expenditure, a contraction of economic activity would supervene, the effects of which would outweigh those of the reduction in expenditure itself. An increase in wages and salaries for the less-favoured groups among the workers and employees might have the desired compensatory effects.

Would it be judicious to curtail expenditure by reducing not only Government purchases but also the number of public employees? Apart from all the other difficulties to which this question gives rise, there would be very serious obstacles in the way of re-absorption of the unemployed, for, as the Chilean economy is lacking in dynamic force,

they could only be readily absorbed in other activities to the extent that the rate of growth of employment in Chile were raised by increased investment.

In view of the difficulties of this policy, it might be asked to what extent the abolition of posts which fall vacant in the Chilean administration would counterbalance over a number of years the effects of the recent rapid increase in current expenditure.

Mention has been made of the Government's current expenditure but not of public investment. Could a reduction in this latter be considered, bearing in mind its stagnation in the last ten years and the urgent need to expand the country's basic investments?

Whatever answer may be given to these other questions, if it were impossible or inadvisable to eliminate or to make a perceptible reduction in the budgetary deficit by means of lower expenditure, what opportunities would the fiscal system have of obtaining higher tax receipts? How far could these resources be increased by improving the tax collection system, as has often been suggested?

In this connexion, a broad distinction must be drawn between the type of taxes that fall more heavily on the great mass of the population, and those that mainly affect the higher income groups. The revenues derived from the former increased by 135 per cent between 1935-39 and 1950-54, while those accruing from the latter rose by only 61 per cent. (See table 20.) It is true that the consequences of this fact have been to some extent counterbalanced by subsidies to consumption. Apart from the considerations of another nature which might suggest themselves, would a higher indirect taxation be compatible with the aim of relieving and even eradicating inflationary pressure arising from the wage-earning and salaried sector? Would it not greatly increase the difficulties of adopting those measures of readjustment which were described above?

Table 20. Chile: Composition of taxation

Annual average, by periods	Total	On consumption and personal income ^a	Other taxes	On consumption and personal income ^a	Other taxes
		(millions of pesos) ^b		(percentages of total)	
1935-39.....	11,191.9	2,274.2	8,917.7	20.3	79.7
1950-54 ^c	19,658.2	5,334.3	14,323.9	27.1	72.9
Percentage variation:					
1935-39 to 1950-54.....	75.6	134.6	60.6	..	..

Source: Basic statistics of the Ministerio de Hacienda, Departamento de Estudios Financieros, Chile.

^a Comprises direct taxes on individuals and indirect taxes on consumption.

^b At 1950 prices.

^c For 1953 and 1954, provisional statistics have been used.

Thus the only remaining alternative lies in direct taxation, which affects the higher income brackets. In this case there is no reason why inflationary pressure should be intensified, providing that private banks operate in conformity with fiscal policy. But there are other aspects of the problem to be examined. What would be the impact of an increase in direct taxation on the coefficient of private investment, which is in any event low? Could fiscal measures by applied in Chile which would encourage investment and at the same time allow progressive taxation to be imposed on the consumption of these higher income groups? This is

no idle question, since there are countries that have established a distinction of this kind, so as to reconcile an expansion of fiscal resources with incentives to investment. A thorough treatment of this whole subject would have to rest on a detailed study of the present tax system, as well as of its economic and social effects, of the best method of increasing tax receipts and of the reforms which economic development and equitable taxation principles suggest.

As regards borrowing, could foreign loans be envisaged so long as the inflationary process continues? Would it be advisable or possible to resort to foreign credit to finance

some part of public investment and to diminish the deficit so as to gain time for the adoption of other measures aimed at balancing the budget?

Finally, an important aspect of the public sector remains to be considered. It has elsewhere been stated that the sale of foreign exchange at preferential rates for imports of essential goods is an important means of subsidizing the consumption of the great mass of the population. This subsidy represented 12 per cent of the real income of employees and workers between 1950 and 1952. Moreover, it amounted to a sum larger than the fiscal deficit, which might at first sight suggest that at least a partial solution to the problem of the deficit could be sought in this quarter. But a serious objection at once arises. Would not the inflationary pressure thus eliminated reappear with the same intensity in the wage-earning and salaried sector, through the rise in prices which would follow on the suppression of the preferential rate of exchange? And, in any case, would it be reasonable to expect the absorption of the pressure by this same sector as long as there were still a margin to increase taxation on the consumption of the higher-income brackets? In short, the absorption of the inflationary pressure poses an essentially socio-political problem, namely, that of determining which are the groups best fitted to bear the temporary reduction of their real income that an anti-inflationary policy demands, should it be decided that such a policy is opportune and feasible.

In this connexion the possibility of resorting to exceptional measures to reduce the money supply rapidly might be discussed alongside the more conventional forms of taxation. But here, too, the technical elaboration of such measures is only one aspect of the complex reality of Chile's case.

(iii) *The entrepreneur's sector.* Three aspects of the problem as it relates to this sector should be examined here, namely, the ability to bear the burden of higher taxation; the use of the monetary mechanism to prevent further inflationary pressures; and the adjustment of prices to costs in specific situations. The first has already been discussed to some extent. The second is a typical situation where the monetary authority can exert its influence unrestricted save by its own decisions and the efficacy of its technical methods. If, when other sources of inflationary pressure had been eliminated, private banks were to respond to the demand for credit for investment, however useful such investment might be, the consequent rise in prices might lead to the reappearance of the spiral. This allusion does not apply only to fixed capital; the use of the funds of private banks to finance the circulating capital required to expand production is also a universal practice. Provided this kind of operation were kept within bounds which could be defined only on the basis of more adequate information, there would be no need for anxiety as to its inflationary effects. The position is different when the circulating capital requires a long period to mature, as occurs in the case of agriculture. This point must be taken into account when considering the financing of investment, if future misdirection of credit expansion is to be avoided.

There are other problems relating to this sector which the monetary authorities would have to face in pursuing an anti-inflationary policy. If any one of the suggested alternative means of gradually absorbing the inflationary

pressure were adopted to eliminate that arising from the sector of the employees and workers, the commercial banks would be called upon for the credit needed by entrepreneurs to cover the rise in salaries and wages. If some part of this increment could be absorbed by the profits earned by entrepreneurs, the absorption of the pressure would also take place more rapidly. Herein lies one of the fields in which the intervention of the commercial banks may be of great importance, according to the liberality of their credit policy.

A third aspect still remains to be considered. As in all Latin American countries affected by inflation, it has often happened that public utilities have seen their potential profits prejudiced; new investment has thus been discouraged, and actual disinvestment has even taken place at times. Charges and rates have not kept pace with the rise in costs, and the time may come when the consequences of such a situation may prove extremely serious. In the long run, an increase in rates is therefore inevitable within the limits set by justice, prudence and the technical characteristics of the enterprises concerned. But when will such an increase be? To what extent will it be possible for the incidence of the readjustment to be felt only gradually, so as to avoid exaggerating the already substantial difficulties inherent in the absorption of inflationary pressure?

(c) *External disequilibrium.* There is no need to recall here the causes of this disequilibrium, which have already been explained, nor to anticipate the description of recent events that appears elsewhere in this volume.

The present observations rather apply to the situation of tension in Chile's balance of payments, which is so acute that, unless the appropriate corrective measures are adopted, it will not be possible even to maintain the slow pace at which the gross product has increased during the last ten years, much less to accelerate its rate of growth. Independently of such measures, the elimination of inflationary pressure will help to reduce external tension, since part of the increment in the monetary demand created by inflation is used to expand imports. Here, too, it is of great value to analyse the impact all this will have on consumption in the various social groups. But important though such a consideration may be, it is an open question whether disequilibrium could be corrected without the adoption of longer-term measures to promote import substitution and encourage exports.

The former will continue to be difficult until the gradual expansion of income or the vigorous development of inter-Latin-American trade enables certain substitutive industries to reach their most economic size. Chile, as emphasized in previous reports, has already passed the stage of easy substitution in the industrial field, and is now in that later phase which demands a more intensive study of its resources, as well as further technological research to improve their utilization, both of which have opened up promising prospects in other countries. The establishment of the metallurgical industry naturally offers new opportunities for substitution, which will be examined in a later ECLA report. Agriculture also has similar potentialities, provided that technological research is combined with an adequate volume of investment.

As regards the possibility of new exports, there can be little doubt that the outstanding case is that of pulp and paper. According to expert opinion, Chile could well

develop a pulp and paper export trade, which might within a reasonable period, reach a value as large as that of copper. Raw materials, energy and other conditions very favourable to production all exist in Chile. Furthermore, foreign private capital disposed to supplement domestic effort by investing in this industry may also be available.

It seems that Chile might also be able to develop other new exports and to expand its traditional exports.³⁵ The effect produced on these latter by the exchange and price policy has been mentioned elsewhere.

In any event, the development of exports and of import substitution will take some time to yield concrete results. Meanwhile, capital investment might be confronted with insurmountable obstacles, given Chile's precarious situation with respect to foreign exchange. A reduction in the investment coefficient, already very low, would in its turn exert a most detrimental influence on the expansion of the gross product. Could an anti-inflationary policy be successfully pursued in such conditions? Is such a policy conceivable without the collaboration of foreign capital? From another point of view, if time must be allowed for measures of fiscal readjustment to take effect, could funds from abroad temporarily cover some part of public investment, at the same time relieving external tension?

(d) *The instability of the Chilean economy.* Chile, like all Latin American countries, is highly vulnerable to external fluctuations and contingencies. But in this particular case, another factor supervenes on which comment has already been made, namely, the considerable share of public revenues which is directly affected by external factors. Furthermore, if Chile were able to make a perceptible increase in its exports, this vulnerability might be aggravated. Would such a policy, then, be inexpedient? Or must it be combined with another anti-cyclical policy?

In this connexion, one of the resolutions on this subject, adopted at the Rio Conference, may be recalled.³⁶ Under its terms, a country which absorbed part of the increment in its foreign exchange resources in periods when its balance of payments was favourable, devoting these funds to financing economic development projects, would be enabled to complete such projects in periods of external disequilibrium with the help of the international credit institutions. These latter would give them preferential consideration, and would even grant special credits in reimbursement of the foreign exchange outlay already incurred. Could Chile make use in this way of the windfall increase in that part of its revenue determined by external factors? If so, the problem described earlier would not arise; that is, the difficulty of subsequently restricting

public expenditure which had expanded as a result of the larger revenues accruing in times of prosperity. At all events, even if this idea were rejected, would it be feasible to utilize the windfall increment in external resources to finance capital goods imports, for either public or private investment, so as not to cause undue expansion of the Government's current expenditure?

(e) *The acceleration of growth.* One persistent theme pervades the foregoing pages. The weak rate of growth of the Chilean economy barely keeps pace with that of the population. Would Chile be capable of effectively combating inflation if there were not a marked acceleration of the rate of its economic growth? And can this be achieved without the collaboration of foreign capital, both in basic investment, which has so greatly declined, and in private investment?

The slowness of the increase in average productivity per worker in just this last quarter of a century is very striking. However wide a margin there may be for increasing *per capita* productivity by means of improved techniques, independently of capital, this very fact ultimately means that more capital is required to absorb the man-power unemployed as a result of the increment in productivity. Consequently, from whichever angle this problem is viewed, the urgent need to expand the stock of capital is bound to arise.

If foreign capital is required for this purpose, can the necessary amount be obtained while inflation is still unchecked? What is the nature of the obstacle that inflation sets up? Two points must be examined here. Firstly, it should be considered whether the climate created by inflation is favourable to an increase in productivity; and, secondly, whether the rise in productivity might not be too quickly absorbed by consumption under the influence of the inflationary impulse, to the detriment of the share that should be devoted to a progressive increment in investment out of national savings.

Does this mean that only when inflation is arrested will an increase in foreign investment become a practical possibility? In the course of the general consideration of this problem, it has been maintained that an anti-inflationary policy should form part of a programme of economic development. Broadly speaking, such a policy should neither precede nor follow a development programme, but should be incorporated in it. Can a different view be advocated in Chile's case?

In actual fact, in the implementation of an anti-inflationary policy in any country, great importance attaches to the clear awareness that through a development programme income may be readily expanded. It must not be forgotten that the inflationary struggle is also as a rule a psychological outlet: it keeps alive the hope of increasing the precarious real income currently available. And even though this hope, except for one or other isolated group, has often been disappointed, it plays an important role in socio-political dynamics. If it is not sustained with the possibility of a real increase in income, will it be possible to exact the sacrifice temporarily imposed by an anti-inflationary policy? In the final instance, contemporary inflation is not a mere monetary phenomenon, but one of deep social significance. Will the endeavour to control it rest upon sound bases without the support of vigorous economic growth?

³⁵ From a preliminary survey which ECLA is preparing on the possibilities of increasing Latin America's export trade, it is apparent that Chile could make progress similar to that achieved in pulp and paper with several other products. Among these, mention may be made of lumber, especially semi-manufactured articles; wool; certain agricultural products, such as barley, lentils and beans; dried and fresh fruits. It is also believed that wine exports could be expanded, as well as those of manufactured goods, in particular, glass, iron, steel and copper products. There is also an allusion to the potential development of certain exports of chemicals derived from nitrate.

³⁶ Resolution ES-Res. 67/54 of the Meeting of Ministers of Finance or Economy at the Fourth Extraordinary Meeting of the Inter-American Economic and Social Council (Quitandinha, Petropolis, Brazil, 22 November–2 December 1954).

(f) *Final reflections on anti-inflationary policy.* At the close of this brief review of inflation in Chile, it will be understood why constant stress has been laid on the fact that its intention was not to recommend solutions but rather to describe in general terms the source of this inflation, and to sketch in outline the shape at present taken by the problem of anti-inflationary policy. The solutions are basically of a political and social nature and are outside the scope of ECLA's terms of reference. For the elimination of inflationary pressure inescapably involves measures for the distribution of income in which factors that can be classified as economic are intertwined with others obviously of a different character.

These measures affect the present distribution of income between workers and employees, on the one hand, and entrepreneurs, landowners, and property-holders, on the other, apart from their incidence upon the different groups into which each of these large categories may be divided. In this connexion, an anti-inflationary policy implies decisions of vital importance.

Such decisions primarily concern the extent to which each of these two categories must help in absorbing the inflationary pressure. It has already been remarked that the pressure arises from both the public and private sectors of the economy. The elimination of the budgetary deficit necessitates determining the magnitude of the additional share of real income which the Government can draw from one or other sector, in so far as it is not possible to reduce this deficit by cutting down expenditure—a point which also raises a problem of redistribution. In its turn, the elimination of the pressure arising in the private sector will also affect the distribution of income. As regards workers and employees, the pressure to be absorbed will be more or less substantial, according to the characteristics of the monetary policy adopted. If, as already noted, this policy contemplated providing the entrepreneur with less credit than he requires to pay higher wages and salaries, then, in a programme of gradual absorption, some of the pressure would disappear at the expense of the entrepreneur's profits. In contrast, if credit facilities were greater and were destined for investment also, the additional burden thus placed on the salaried and wage-earning sector would make the application of an anti-inflationary policy still more difficult.

These are the two major decisions which must be taken on fiscal and monetary policy, apart from others which also influence the re-distribution of real income between the two sectors mentioned above.

Closely allied to these considerations is the question of investment. Such decisions, in affecting the volume of profits, will naturally have their repercussions on private investment and, as a result, on the rate of economic growth.

In the course of a strictly objective examination of the forms that the foregoing solutions may assume, three aims, over and above the intrinsic interest of the topic, have been pursued. The first was to call attention to their complexities and the need to combine domestic efforts with measures for international co-operation in the effective implementation of an anti-inflationary policy. Secondly, it was desired to emphasize the importance of the collaboration of every group in the community in the application of anti-inflationary measures, in view of their predominantly political and social character; and, thirdly, to learn the lesson of this exceptional example of inflation.

In this connexion, it must not be overlooked that in Chile's case inflation involves a new phenomenon, quite different from those to which Latin America has been accustomed. Its analysis thus provides a lesson which has never previously been available.

In order to benefit from it immediately, an attempt has been made at a logical and objective definition of the different elements making up Chile's present experience. And if more than once, in commenting on the initial development of this inflation, mention has been made of the limit beyond which a traditional inflationary process turned into a dangerous price-wage spiral, the motive was not to judge a policy or to suggest what might have been accomplished instead of what actually was done.

It would be a historical contradiction in terms to claim that such lessons could at the time have guided the course of the very events from which they themselves sprang. (It should be recalled that during the world depression, the advisability of an expansive policy to combat it was an open issue everywhere.) Furthermore, an experiment was being made, perhaps for the first time on a systematic basis, in using the trade unions as an instrument to avoid a reduction in real wages. For the importance of this fact to be grasped, it suffices to mention how far salaries and wages have lagged behind the rising cost of living in other Latin American countries. In several of them the inflationary spiral may have been avoided; but at the cost of a serious maldistribution of income.

What, then, are the lessons to be learnt? This problem, far from concerning Chile alone, is in fact one of the consequences of contemporary social evolution. Syndicates and trade unions have acquired a growing importance in the economic development of the countries of the region, and if they do not act in conformity with the fiscal and monetary policies, it is unlikely that the efficacy of these latter will be as great as in former times.

Unless all these elements are combined for a common purpose, it would be idle to expect monetary policy to accomplish what it cannot achieve on its own. One of its functions is to prevent inflationary investment on the part of entrepreneurs or to avoid the transfer of the incidence of wage increases to the consumer when there are sufficient profits to absorb them. This is certainly no easy task, because it means venturing into another new sphere, which monetary policy, traditionally guided in its restrictive action by the symptoms of external disequilibrium, had not formerly taken into account. What means are there of determining how far wage increases could be absorbed by the profits of the entrepreneurs without depriving them of essential inducements or of the resources which their investments require? Not only would such a task presuppose the availability of very accurate instruments of analysis, but it also poses a problem of a different nature from those hitherto faced by central banks, and one which, however difficult, could not be evaded without serious consequences. But beyond this point, the efficacy of monetary policy stops short. Experience more than suffices to show that such policy cannot in practice offset the results of a fiscal policy that is favourable to the inflationary spiral, or prevent the spiral from being aggravated by a pressure which, exerted with the laudable aim of improving remunerations, oversteps the bounds imposed by reality. In a case like this, the role of the monetary instrument becomes a passive one, except in so far as it recognizes and confirms, by periodical devaluations, the extent to which the spiral is widening out.

In countries traditionally prone to inflation, where economic development customarily takes this form, great opportunities for the trade unions lie ahead. They will be called upon not only to defend real wages against the losses inherent in the inflationary process, but also to avert or control inflation itself by what may prove to be decisive collaboration in the use of the monetary and fiscal instruments. A vigorous development policy for the countries of Latin America is inconceivable in face of the economic and social disturbances which the spiral brings in its train, and the further elements of instability which it adds to those of an external nature. Clearly, this also is a matter of the greatest importance to the working population, since such a policy alone can create the conditions which will foster a steady rise in their standard of living.

B. THE EXAMPLES OF MEXICO AND ARGENTINA

One of the most urgent of Latin America's problems is the need to arrest inflation without producing disturbing consequences which may conspire against the efficacy of an anti-inflationary policy. It is true that in none of the many other countries where inflation exists has it reached such extremes as in Chile. But there is one consideration which cannot be disregarded here. In countries which have long since overcome the effects of the world depression, and where the inflationary process was much weaker than in Chile, anti-inflationary policies encountered such serious obstacles that governments were obliged to renew expansion. Nevertheless, governments had been forewarned to proceed with caution to avoid the risks which past experience had more than once brought to light.

What were the obstacles that gave so short a lease of life to anti-inflationary policy? Cannot inflation be arrested without causing a contraction in the economy? These questions are of such great practical importance for Latin America at present, that it seems advisable to examine them in the light of the recent experience of two countries, Mexico and Argentina. But, unlike the problem of Chile, no analysis of the distant past would be justified because of the very nature of the phenomena to be discussed.

1. Mexico's experience

(a) *The course of anti-inflationary policy.* Above all, it should be recalled that inflation contributed to capital formation in Mexico, but at the cost of a redistribution of real income which allowed the consumption of the higher-income groups to increase at a much faster rate than investment.³⁷ This resulted in a two-fold tension which the Government sought to reduce. One aspect was the internal social tension caused by the delay in adjusting wages and salaries to rising prices (further capital formation would not have been possible without this adjustment); the second was a typical pressure upon the balance of payments. In an endeavor to ease this situation, the Mexican Government curtailed the volume of public investment, whose partial financing by bank credit had been a major factor in the inflation. A logical repercussion of this measure, introduced at the end of 1952 and in force during the first half of 1953, was the decline in private investment, further hastened by the restrictions imposed on a formerly liberal credit policy. This fall in aggregate investment helped to ease the external tension, but it also brought about an over-all contraction in Mexico's economic activity, with the resultant unemployment of productive factors.

³⁷ See above, pp. 55-57.

This example is highly instructive. Only two ways of arresting inflation and simultaneously preventing a decline in investment lay open: to cover the inflationary part of investment either with foreign loans or with additional tax revenue. The second method would have enabled income to be maintained at the same level, but external tension would have persisted unless measures to restrict imports had been enforced. Moreover, it should not be forgotten that the period required to prepare and impose heavier taxation would perhaps have been rather too long in view of the emergency with which the new Mexican Government was faced. However, the possibility of recourse to foreign credit remained. Apart from maintaining the level of investment, this would have eased external tensions and would have given time for the adoption of long-term fiscal measures.

The importance of international co-operation in an anti-inflationary policy has already been emphasized in a previous report,³⁸ and the experience of Mexico once again justifies such an assertion.

(b) *Factors which led to devaluation.* In any case, in the second half of 1953, the monetary authorities thought it expedient, for the sake of economic recovery, to renew their expansionist credit policy. External tensions had early made their pressure felt, and the higher tariffs established in December 1953 would have taken too long, in view of the urgency of the situation, to yield results. To all these other factors should be added the deterioration in the terms of trade.

Parenthetically, it would now be of value to form some idea of the considerable difficulties to which the vicissitudes of the monetary situation expose a country in process of development. Once external tensions appear, the country concerned needs time to make the necessary readjustments. Meanwhile, recourse must be had to monetary reserves, which exist for this specific purpose. Unfortunately, Mexico's reserves are subject to sudden fluctuations arising from uneasy or speculative movements in foreign resources invested or deposited in the country, or in domestic funds ready to flee abroad. It may be observed that domestic funds had attained a very unusual degree of liquidity, which later events have corrected. There existed a considerable accumulation of drafts of official organizations, which the Bank of Mexico had guaranteed to take over at their nominal value. In these circumstances, Mexico's monetary reserves found themselves jeopardized by a combination of adverse factors which ultimately led to devaluation of the national currency.

The strength of Mexico's monetary position was restored when internal liquidity disappeared, and when, alongside an improvement in the balance of payments, the losses in reserves that had arisen from the psychological repercussions of the measure were made up at the end of 1954.³⁹ But it may well be asked whether, over and above these events, a country like Mexico ought not to have at its disposal, in addition to its normal reserves, a sizable operating fund of foreign credit on which it could comfortably draw for the period—which experience has shown to be

³⁸ See ECLA *International Co-operation in a Latin-American Development Policy* (document E/CN.12/359), United Nations publication, Sales No.: 1954.II.G.2.

³⁹ See chapter II.

brief—of the fluctuations arising from uneasiness or speculation. Time would thus be gained for the measures aimed at correcting external disequilibria to take effect.

(c) *General nature and scope of devaluation.* From a broader point of view, the conviction is apparent in Mexico that although devaluation may facilitate immediate readjustment, it is not a mechanism that should be utilized periodically for the temporary balancing of foreign accounts. It is clearly recognized that every fresh devaluation produces additional disturbing effects, without basically correcting the factors that cause external disequilibrium. This is a significant consideration, the analysis of which cannot be neglected.

It should be recalled that, despite the vital importance of the external sector, in Mexico it accounts for only 13 per cent of total income. Of this 13 per cent, the proportion capable of being directly affected by devaluation would not on a generous estimate be more than 10 per cent. A calculation of the ratio between these two percentages shows that even if as much as 1.3 per cent of aggregate income is to be influenced with relative efficacy, the whole cost and price mechanism of the economy must undergo complete readjustment, or, in other words, the nominal value of the national income must be raised in each and every one of its components.

Nor is this all. Once this internal readjustment has been put into effect, the same tensions that were momentarily allayed are liable to recur. It is true that a higher rate of exchange for the dollar acts as protection to internal activities so long as it is not followed by a rise in the cost of production in import substitutive activities. But after a time, there is an inevitable adjustment of this cost to the rise in prices, by virtue of the increase in wages and in export and import prices. As soon as this process is complete, the temporary protection afforded by devaluation disappears, and the effects of foreign competition again make themselves strongly felt. If in these circumstances higher tariffs are not enforced or direct measures to restrict imports are not adopted, a revival of external tension will ensue. It would be simplifying matters too much to attribute the repeated devaluations of the Mexican currency to this process, but there can be no doubt that it has played an important role in their recurrence.

Devaluation does not therefore seem to be a mechanism which can be used without hindering the introduction of those changes in the composition of imports which a country's economic growth inevitably imposes, whatever may be the effort to develop exports of goods and services. This constitutes one of the most interesting aspects of development policy. It has more than once been demonstrated that there is a practical possibility of assessing, with a reasonable degree of accuracy, the modifications in the import structure which a country should gradually introduce in order to avert, or at least to reduce, the external tensions arising from this source. There is therefore no reason to assume that Mexico has no available effective means of preventing future devaluations.

(d) *Remarks on exchange control.* Examples such as that of Mexico, apart from their great intrinsic interest, are of significance to the whole of Latin America, since the guiding principles of a monetary policy compatible with the requirements of development must be deduced from this kind of empirical observation.

Among the various questions that arise in this connexion, the most significant, without a doubt, is whether exchange control could provide an effective mechanism to avoid devaluation. In reality, the answer to this question might be found in the experience of other Latin American countries which use or have in the past made use of this instrument. It is a proven fact that exchange control may defer—sometimes for several years—the devaluation of the currency within an ever-present process of inflation. But sooner or later devaluation must occur, and, meanwhile, conditions which heighten the difficulties attendant upon an anti-inflationary policy will have been created.

Exchange control certainly enables a fixed rate to be maintained for imports and exports; but it does not avert a rise either in domestic prices of imported goods or in those of commodities produced locally with foreign raw materials, except in rare cases where the strict enforcement of price-control regulations has been possible. Nor does it prevent the internal costs of export commodities from increasing on account of the inflationary rise in prices. The consequences are well known. Although control curtails imports and maintains a fixed rate of exchange for those which are permitted, it places no curb on higher domestic prices, so that the profits reaped by import-licence holders are sometimes very large. Exports, on the other hand, are ultimately discouraged by higher internal costs, unless these happen to coincide with better prices on the world market. It is true that an absolute or relative decline in exports might be offset, as has actually occurred on occasion, by an expansion of the domestic demand, but this cannot compensate for the loss of foreign exchange.

All these maladjustments must ultimately lead to devaluation in one form or another, or to the search for methods of subsidizing exports or raising duties on imports which will play the same role as devaluation. In other words, exchange control may temporarily disguise the effects of inflation, but they will inevitably appear sooner or later.

From another standpoint it must be acknowledged that an economy under an exchange-control system is not exposed to sudden devaluations; within certain limits, this instrument allows the most opportune moment to be selected for carrying out exchange adjustments. Under such a system foreign trade transactions are as a general rule kept apart from those financial or speculative fluctuations which take place independently on a free official market or on an unauthorized one. But it is well known that when there is a very great and persistent difference between the rates of exchange on this market and on the import and export market, the risk of a flight of foreign exchange from the latter to the former is considerably increased.

On this subject of exchange control, Latin America offers a wealth of experience dating from the world crisis, which could prove highly instructive if it were ever to be studied objectively.

2. Argentina's experience

(a) *How it differs from that of Mexico.* Argentina's anti-inflationary experience is in some respects similar to Mexico's. In both countries the rate of growth was high, but was finally brought to a halt by a disequilibrium in the balance of payments; and in both, the depressive conse-

quences of the anti-inflationary policy led to a renewal of credit expansion which enabled economic activity to recover.

But there were also significant differences which should be emphasized here. While in both countries public and private investment perceptibly increased, in Mexico inflation played an active part in this process, through the redistribution of income in favour of the Government and the entrepreneurs; in Argentina, on the other hand, a different factor predominated. Here it was the sharp improvement in the terms of trade between 1945 and 1951 which, together with the active utilization of monetary reserves, permitted the simultaneous growth of both consumption and investment.

External tensions also assumed different forms, since, in Argentina, the effects of a steady decrease in the quantum of exports from 1947 onward were superimposed upon the consequences of a rapid growth of income. This decline in exports was brought about by factors, already described in previous reports, which the Government's agricultural development policy aims at eliminating.

At all events, in both countries it was external tension that perhaps chiefly determined anti-inflationary policy. In Argentina, public and private investment was also reduced, so that the pace of economic activity slackened. But this country was less favourably placed than Mexico for utilizing taxation to maintain the volume of public investment. In Mexico, in fact, there was still a considerable margin for further action, since total tax receipts scarcely amounted to 8 per cent of the gross income, while in Argentina they constituted 12 per cent. The extent of the foreign credit required to avoid economic contraction would therefore have been greater in the latter country.

Again, this higher share of taxation and public expenditure may well have been one of the factors determining a firm policy of financial control in Argentina. The deficit in current expenditure was eliminated and the continuing investment has not entailed inflationary expansion, since it is financed with the proceeds of the sale of Government obligations to pension funds.

This system of financial control, and the measures for the restriction of credit adopted by the monetary authorities, as well as the stabilization of wages as from June 1953, were the principal devices employed in the anti-inflationary policy.

(b) *The renewal of expansionist policy.* At this juncture some explanation is required of the factors which led to the renewal of this policy. Firstly, it must be remembered that while the above measures were being resolutely put into effect, one cause of inflation persisted which is by no means easy to eradicate, namely, the deficit arising from the trade in cereals. It is estimated that this deficit amounted to about 2,180 million pesos in 1953, and probably to a larger sum in 1954, because cereals were exported at prices lower than those which it had been necessary to pay to encourage production. This deficit is really nominal, because exports are made at an overvalued rate. This rate is at a much lower level than that which would normally be attained in a free market; in turn, the latter would possibly reach a level well below the rate at present prevailing for transactions carried on outside the official market. If the rate of exchange were a realistic one, the deficit on the trade in cereals would disappear and this

source of inflation would thus be eliminated. At the same time, however, another problem would be created. The exchange proceeds from these and other exports are used to import fuels and raw materials essential to economic activity, so that the raising of the rate of exchange would mean an inevitable increase in prices subject to control; whereas, in the case of uncontrolled prices, the very high profits always made by the intermediaries would simply be transferred to the Government.

This gives rise to a very complicated dilemma. If the exchange rate is raised to eliminate the deficit on the trade in cereals a direct impetus is given to an over-all price rise; and if it is not raised, and the deficit continues, its expansionist effects will inescapably bring this rise in prices in their train.

Clearly, if the *per capita* availability of goods and services could have been maintained at the exceptional level of a few years ago, the absorption of this increase and of others (such as those in the rates for public utilities),⁴⁰ while difficult enough, would be less so than it is at present. In fact, the *per capita* availability of goods and services of 3,540 pesos (at 1950 prices) attained in 1948 fell to approximately 2,800 by 1954;⁴¹ this contraction is now being followed by a recovery which is described elsewhere.⁴² The decline in the availability of goods and services naturally provoked a fall in real wages, and, as a result of the repercussions of the latter, the Government authorized a 15-20 per cent wage increase in May 1954.

To meet this rise in nominal wages bank credits had to be used; and this measure, together with the expansionist effects of the deficit on the trade in cereals, was the positive agent in the recent recovery of Argentina's economy. A fresh incentive was thus given to private investment, though the reduction of the balance of payments surplus has permitted an increase in the imports of raw materials and fuels rather than in those of capital goods.

An unfavourable consequence of this expansion is the rise in prices which is gradually depriving real wages of what they had gained by the measure aimed at their readjustment. Herein lies the essential factor in the process. The steady pursuit of the budgetary policy described above has abolished one of the two important elements of inflationary pressure. The elimination of the other will depend upon how far the economy can absorb the pressure of such delicate readjustments as those of the rates of exchange. It is clear that a rapid increase in productivity would make such operations less difficult. Such expansion is, indeed, one of the main objectives of a Government programme in which foreign capital and technique have been given every inducement to take part. Their co-operation would help to increase the rate of growth of income, and to remove the serious external obstacles to such growth, by relieving the pressure on the balance of payments, especially with respect to petroleum, and capital and durable consumer goods. It is hoped that during the course of the next five years the current large volume of petroleum imports can be eliminated.

⁴⁰ It seems that the deficit in these services had no inflationary effects because the Government grants them a subsidy in the form of credit instruments with which they are able to make their contributions to pension funds.

⁴¹ Preliminary estimates.

⁴² See part II, chapter I, Argentina.

Chapter II

TRADE AND THE BALANCE OF PAYMENTS

INTRODUCTION

The year 1954 was more favourable for Latin American trade and payments than had generally been anticipated. Raw material prices did not fall to the low level feared at the beginning of the year, when a deepening recession in the United States appeared to be in prospect. A relatively small decline in exports to that country was offset by the larger value of those to Europe, where continued economic progress and an 8 per cent rise in industrial production had much to do with maintaining world demand and prices for primary productions, or at least preventing a sharper decline in them. This was especially true in the case of metals and certain foodstuffs and agricultural raw materials.

On the whole, however, developments during the year again revealed a tendency toward disequilibrium and a fundamental weakness in the balance of payments of most of the Latin American countries. It became apparent that imports could not be raised substantially above the low levels of 1953 without deficit financing; this has subsequently led to renewed restrictions on imports. Despite signs of an acceleration in the flow of medium-term loans to finance imports of capital goods, in 1954, export earnings were supplemented less by non-trade receipts because of the reduction in the net inflow of capital. Even the coffee-producing countries, which had enjoyed a rapid expansion of exports and of internal economic activity during the first part of the year, were later faced with the prospect of having to reduce imports. Colombia was an outstanding example of this group; in early 1955 the Government imposed quantitative restrictions, in order to ensure a continued flow of machinery, equipment and raw

material imports, without being obliged to increase the small net deficit of its 1954 balance of payments. As the year ended the immediate outlook for world demand for some of Latin America's principal export commodities— notably sugar, wool, cereals and tin—was unfavourable, and it appeared that the search for bilateral arrangements to dispose of surpluses would have to be intensified.

I. CHANGES IN THE NET BALANCE OF PAYMENTS

During the period 1953-54, Latin America's balance-of-payments surplus was reduced by 700 million dollars. Excluding Venezuela, the region had a net deficit of 150 million dollars.¹ Argentina, Brazil and Uruguay, which together had a deficit exceeding the aggregate deficit for the entire region in 1951-52, were once again the principal contributors to the deterioration of Latin America's position. Cuba and Bolivia also suffered drastic reverses in their payments situation. Although a 14-million-dollar grant in terms of foodstuffs by the United States Government helped to meet basic import requirements, this aid was far short of Bolivia's estimated deficit of 27 million dollars, which was equivalent to one-third of its export earnings. A sharp decline in Cuba's trade balance during 1954, and a substantially loss of markets in non-dollar areas since 1951, point to the possibility of a persistent contraction of its capacity to import.² (See table 21.)

¹ This amount was equal to Brazil's deficit, the net surpluses and deficits of the other countries of the region more or less compensating one another.

² The capacity to import is given at current values throughout this chapter.

Table 21. Latin America: Net balances of payments^a

(Millions of dollars)

	1950	1951	1952	1953 ^b	1954 ^c	Cumulative balance 1950-54
Argentina.....	87	-111	-378	354	80	32
Bolivia.....	- 1	4	- 3	6	- 27	- 21
Brazil.....	65	-463	-620	88	-150	-1080
Cuba.....	5	73	- 36	101	- 15	128
Uruguay.....	53	- 68	6	76	- 15	52
Venezuela.....	2	50	143	175	170	540
Rest of Latin America.....	181	- 21	152	- 83	- 21	208
TOTAL	391	-535	-736	718	22	- 141

Source: Economic Commission for Latin America, based on data supplied by the International Monetary Fund.

^a The net balance of payments includes net transactions on commodity trade and services (freight, insurance and travel); net capital movements and investment and debt servicing. It excludes compensatory financing, changes in reserves, short-term commercial credits or arrears and errors and omissions.

^b Provisional figures.

^c Estimated by ECLA.

The external payments difficulties of Brazil and the River Plate republics were greatly aggravated by the deficit with the dollar area.³ It is estimated that this deficit amounted to between 300 and 350 million dollars, of which Brazil accounted for about 240 millions. This was roughly equivalent to the reduction in their trade balance with the United States between 1953 and 1954. With the exception of 1953, when severe restrictions were applied to dollar imports, the disequilibrium of trade and payments between monetary areas for this group of countries has persisted since 1951. Exports have tended to shift away from the dollar area without a parallel change in the direction of imports. It is estimated that during the four-year period, the cumulative deficit of these countries with the dollar area amounted to almost 1,200 million dollars. In contrast, the capacity to import from the rest of the world has tended to increase, with the result that by 1954 the 1951-52 deficit with non-dollar countries was virtually eliminated.⁴ Trends for Argentina and Brazil are shown in chart XIII.

In 1954, Brazil and each of the River Plate countries had a balance-of-payments deficit with the United States. Argentina's surplus for other convertible currency transactions was evidently sufficient to offset its deficit with the United States; this was made possible by the transfer of much of Argentina's petroleum imports back to the sterling area, after production was resumed in Iran, and by the purchase of petroleum from Eastern Europe in 1954. Thus Argentina was able to attenuate one of the principal causes of the persistent dollar shortage among this group of countries—the need to purchase a large volume of petroleum from parts of the dollar area to which no counterbalancing exports are shipped. But Brazil could not replace dollar petroleum imports by sterling purchases on any large scale, because sterling was in short supply and the sizable trade debt with the United Kingdom had to be serviced.

The rest of Latin America—the countries which are not specified in table 21—showed no serious deficit in 1954, although, as indicated above, there was increasing pressure on their balance of payments towards the end of the year. Taken as a group, these other countries⁵ account for roughly one-half of Latin America's trade. The dollar area is the source of three-quarters of their imports, the value of which is equal to their capacity to import from that area;⁶ and a substantial part of their exports to other areas is paid for in dollars.

However, there were wide divergencies in the positions of these countries during 1954 as well as in the long-term trends of their balance of payments. On the one hand, countries like Colombia and Venezuela have experienced an extraordinary and sustained expansion in exports and in the capacity to import; on the other, the exports of

³ The dollar area includes the United States, Canada, those European dependencies in the Caribbean which refine and export petroleum, and the Latin American republics, excluding Brazil, Chile, Peru and the River Plate countries.

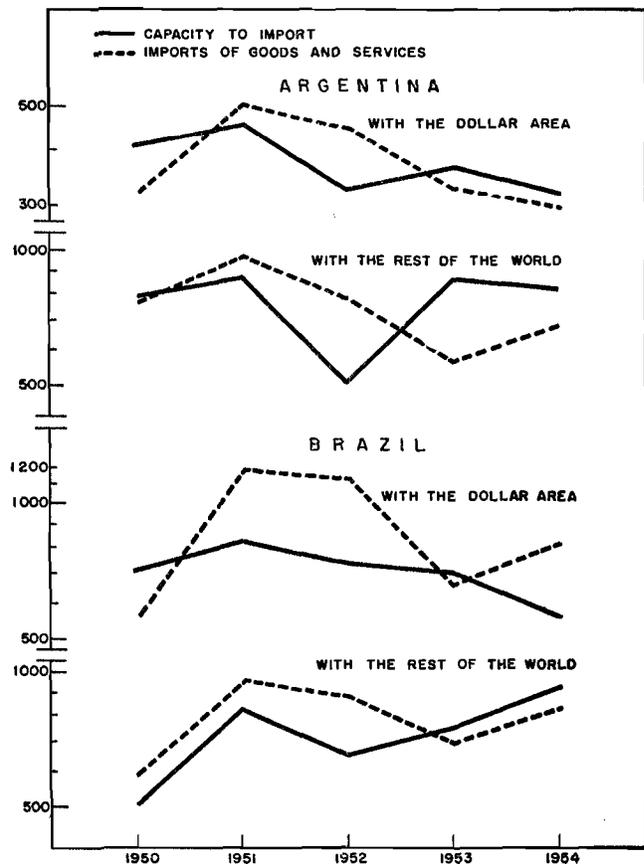
⁴ It should be noted, however, that Brazil alone accounted for approximately 950 millions of the cumulative dollar deficit, and, in addition, had a 200-million-dollar cumulative deficit with the rest of the world during the same period.

⁵ Chile, Colombia, Dominican Republic, Ecuador, Haiti, Mexico, Peru and Central America.

⁶ Nevertheless, these countries have also shown a tendency to increase the proportion of their trade with the non-dollar world during the last few years.

Chart XIII
ARGENTINA AND BRAZIL: BALANCE OF
PAYMENTS BY MONETARY AREAS

Millions of dollars at current prices
(Semi-logarithmic scale)



Chile, Mexico and Peru—as in the case of those of Bolivia, Brazil, Cuba and the River Plate countries—have tended to stagnate, or to decline since the 1951-52 boom.

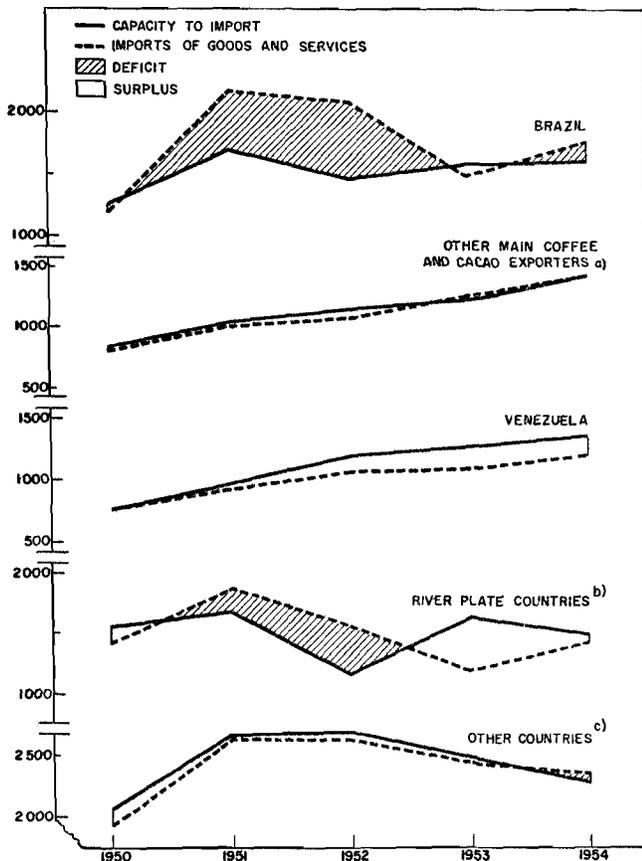
Venezuela's net balance of 170 million dollars in 1954 was approximately similar to 1953; despite annual remittances on foreign investments averaging over 400 million dollars, the capacity to import has risen by 75 per cent since 1950. Nevertheless, the rate of growth of export earnings has definitely slowed down during the past two years: the increase in 1953 was small and the more substantial rise in 1954 mainly arose from higher prices.

Colombia, the Dominican Republic, Ecuador and the Central American countries (excepting Honduras) have also benefited from an expanding export market. In 1954, the capacity to import of this group of countries was 55 per cent above the 1950 level. Most of the improvement was the result of higher prices for coffee and cacao, the remainder deriving from a 19 per cent increase in the volume of exports and from a modest inflow of capital. (See chart XIV.)

The decline in coffee prices and the likelihood of slower growth in both demand and the volume of exports have significant implications for the countries in this group. The repercussions will probably be strongest for Colom-

Chart XIV
LATIN AMERICA: CAPACITY TO IMPORT
AND IMPORTS OF GOODS AND SERVICES

Millions of dollars at current prices
(Natural scale)



- (a) Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua.
(b) Argentina, Paraguay and Uruguay.
(c) Bolivia, Chile, Cuba, Honduras, Mexico and Peru.

bia, where the net balance-of-payments deficit stood at 25 million dollars in 1954, and where growing export earnings have acted as the chief dynamic element in raising industrial production and *per capita* gross income at an annual rate of 10 and 6 per cent, respectively, during the past ten years. As noted above, Colombia has already been obliged to adopt measures to limit imports to the more essential products.⁷

The changes in the balance-of-payments situation of Chile, Mexico and Peru were not as marked as in the case of the countries already discussed. After the boom of 1951-52, the exports from these three countries levelled off and have since shown little tendency to expand. However, in 1954, a rise in Peruvian exports, accompanied by lower imports, resulted in the first balance-of-payments surplus

⁷ Improved coffee and cacao prices have also been of special benefit to Brazil, but for the opposite reason. The volume of coffee exports has tended to decline since 1951, when the country's capacity to import reached its post-war peak, while higher export prices have kept it from being unduly depressed thereafter. Despite this situation, 1954 coffee sales again fell to only 60 per cent of the total value of exports (the same proportion as in 1951), after representing over 70 per cent in 1952-53.

experienced since 1950. Although Chile's estimated 1954 payments deficit of 20 million dollars represented only 5 per cent of the capacity to import, the margin of reserves and internal pressure upon the balance of payments gave greater significance to a deficit of this magnitude. Imports of goods and services worth 360 million dollars fell short of the basic requirements budgeted for 1954 by more than 100 millions; this reflected a progressive difficulty in maintaining existing investment and production requirements with the necessary imports of capital equipment, fuel and raw materials.

The case of Mexico is notable in that devaluation of the peso in April 1954 seems to have had less influence on imports or on export earnings from goods and services (including the tourist trade) than anticipated. The overall decline in imports was small. At the same time, there was a rise in imports of capital goods and other manufactures. This contrary movement was made possible by a saving of some 70 million dollars on imports of wheat, corn and beans, which were replaced by an increased domestic production of almost half-a-million tons. Earnings from coffee and cotton exports were about 20 million dollars higher, but total exports were approximately the same as in 1953. The net effect of a somewhat larger fall in imports than in exports was a reduction of Mexico's adverse balance of payments from 55 million to about 10 million dollars.

A general picture having been presented of Latin America's over-all balance-of-payments situation in 1954, an examination will now be made of some of the specific factors which have contributed to recent trends. A discussion of developments in trade and services on current account will be followed by an analysis of capital movements, investment income remittances and the financing of the net balances of payments. In the last two sections of the chapter, trends in the volume and unit value of global foreign trade, together with the tendencies of principal export commodities, will be summarized.

II. TRENDS IN THE CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS

Latin America's exports of goods and services increased only slightly in value during 1954 in contrast with a rise in imports of 8 per cent worth 600 million dollars. The consequent 550-million-dollar drop in the region's balance on current account was responsible for most of the decline of 700 million dollars in the net balance of payments, the remainder arising from smaller receipts of foreign capital and a rise in investment income remittances. Current account trends are shown in table 22, where trade figures are adjusted so that exports include Mexican tourist receipts, and imports cover freight and insurance payments. Information on other service transactions⁸ is not available for 1954, but these probably had little appreciable effect on current account trends and led to net payments of about 200 million dollars both in 1953 and in 1954. (See table 22.)

⁸ Apart from Mexico's tourist receipts and freight and insurance payments on imports, other services include private donations or immigrant remittances, consular fees and expenses connected with official representation in foreign countries, film rentals, freight receipts and port fees, and net travel expenditures of countries other than Mexico; the last named is responsible for about half of the net payments arising from these other service transactions. Investment income payments are discussed in section III, in connexion with capital movements.

All except six of the Latin American countries shared in the 1954 rise in imports, but the effect on their trade and payments varied greatly. What is most striking about the figures in table 22 is the very large increment in the imports of a number of countries—twelve with a rise of 8 per cent, or more, and six with an increase of over 15 per cent. Of the twelve countries, all but one (Ecuador) suffered a reduction in their trade balances.

The largest import increments were accounted for by the principal exporters of coffee and cacao, with a rise of 17 per cent for the group as a whole; but the substantial increase in the export earnings of most of these countries

attenuated the effect of larger imports on trade balances to a considerable extent. Brazilian exports, however, did not increase above the 1953 value, with the result that the decline of 250 million dollars in Brazil's trade balance was the largest experienced by any Latin American nation. The unusual expansion in the imports of these countries took place mainly because export earnings were less than anticipated at the beginning of the year, and therefore the rate of imports was allowed to rise rapidly during the first months of 1954. Brazil and Colombia relaxed import restrictions, but the full force of this measure began to be felt precisely when exports showed signs of falling off in the second half of the year.

Table 22. Latin America: Trade trends, by countries, 1953-54^a

	Imports (c.i.f.) ^b 1953 (millions of dollars)	Percentage variations 1953 to 1954		Trade balances (millions of dollars)	
		Imports	Exports	1953	1954
I. Principal countries exporting coffee and cacao					
Nicaragua.....	50	29	22	5	2
Colombia.....	540	18	9	82	37
El Salvador.....	74	18	3	20	10
Ecuador.....	87	17	26	8	18
Costa Rica.....	74	11	1	5	-2
Guatemala.....	79	8	-7	29	14
Haiti.....	45	5	47	-7	8
Dominican Republic.....	103	-9	15	3	29
TOTAL	1,052	14	10	145	116
Brazil.....	1,320	19	—	220	-30
GRAND TOTAL	2,372	17	4	365	86
II. Venezuela.....					
	933	9	9	576	630
III. Other countries					
Uruguay.....	205	39	-4	77	-15
Paraguay.....	33	15	5	-1	-4
Bolivia.....	80	13	-23	15	-17
Argentina.....	877	9	-9	289	107
Cuba.....	527	-1	-20	138	15
Chile.....	360	—	-2	51	44
TOTAL	2,082	8	-10	569	130
Peru.....	291	-14	9	-61	—
Honduras.....	62	-11	-4	10	15
Mexico.....	827	-6	-1	-67	-24
TOTAL	1,180	-8	3	-118	-9
GRAND TOTAL	3,262	2	-7	451	121
TOTAL FOR LATIN AMERICA	6,567	8	—	1,393	838

Source: Economic Commission for Latin America, based on data supplied by the International Monetary Fund.

Note: All statistics in this chapter exclude Panama, owing to lack of recent information on receipts from the Canal Zone, which is the country's principal source of foreign exchange earnings.

^a These figures, which are provisional for 1953 and estimated for 1954, are taken from balance-of-payments statistics. To make trade trends reflect current account balances more realistically, net tourist receipts have been included with exports for Mexico, and Chilean exports are given as they appear in trade statistics, unadjusted for the 1953-54 changes in the copper stock.

^b Imports are at f.o.b. values in balance-of-payments statistics, but in the table they are given c.i.f., in accordance either with official figures or with ECLA estimates.

The trade balances of the remaining countries of the region (excluding Honduras, Mexico, Peru and Venezuela) also deteriorated during 1954. This was caused by an 8 per cent increment in their imports, accompanied by a 10 per cent decline in the value of exports. (See again table 22.) Of these countries, Bolivia and the River Plate

republics accounted for the expansion of imports, which occurred as a natural reaction to the low levels to which they had fallen in 1953. The drop in exports from Bolivia and Cuba was particularly severe; although imports did not rise, Cuba's trade balance fell by well over 100 million dollars.

Venezuela's exports and imports rose in an equivalent proportion, whereas the improvement in the current account balances of Honduras, Mexico and Peru largely arose from the reduction of imports by an average of 8 per cent. The substantial fall in Peruvian imports was mainly the result of more stringent credit and import restrictions, but the country also experienced a considerable expansion in exports, particularly during the second half of the year. In fact trade trends for this last group of countries were distinctly more favourable after mid-1954, when the metals market became firmer, and in sharp contrast to export trends for the other countries of the region.

Perhaps the most significant development in Latin America's current account during 1954 was the major shift in the geographic distribution of trade. The region's 300-million-dollar trade surplus with the dollar area in 1953 was converted into a deficit of 100 millions, while the surplus with Western Europe increased because aggregate trade with this area expanded by 500 million dollars.

Almost three-quarters of this additional European trade went to Western Germany, with a small balance in favour of Latin America. This represented an increase of more than 60 per cent in West German imports from the region, and appears to be the result of a vigorous policy of creating markets for German products by absorbing more Latin American commodities.⁹ A 70 per cent reduction of the tariff on coffee in August 1953 greatly stimulated imports, which, despite higher prices, were 65 per cent greater in 1954 than in 1953. In fact, Western Germany became Latin America's best European customer for coffee, 55 per cent being shipped from Brazil, and the remainder principally from Colombia. While West German aggregate imports of wheat and feed grains have been fairly stable during the past three or four years, there has been a marked shift from dollar to non-dollar sources. Imports from Argentina totalled about 500 thousand tons,¹⁰ and, in 1955, under the terms of an agreement signed in November of the preceding year, Western Germany will receive 950 thousand tons of cereals—one-third of its import requirements—from Argentina, in exchange for machinery and other manufactures.

Latin America's exports of other commodities which have played an important role in expanding trade with Western Germany during 1953-54, are the following: cotton (more than twice as large in the latter year); cacao (more than double); copper (10-15 per cent greater); and oil-seeds, timber, fats and oils (relatively small increases). The countries that benefited most from this trade with Western Germany were Argentina, Brazil, Chile, Colombia and Mexico, the first two accounting for approximately 50 per cent. Western Germany's imports from Cuba virtually ceased, for reasons which will be discussed later, while those from Uruguay fell by 25 per cent; this was somewhat less than the decline in Uruguay's trade with other West European countries.

The region's trade with the Netherlands also increased substantially, leaving a favourable surplus for Latin

⁹ See chapter III for a description of the West German credit policies that have contributed to the expansion of trade.

¹⁰ West German imports of cereals from the River Plate countries amounted to 90 thousand tons in 1951/52, but there were no imports in 1953 because of the shortage in Argentina caused by the drought that year.

America. Exports to Belgium, France and the Scandinavian countries rose moderately, while those to Italy and the United Kingdom declined. Eastern Europe and Japan have also made important gains in their trade with Latin America. In reality, most of the greater imports from other non-dollar countries (see table 23) came from Japan and the East European countries, which together shared about 6 per cent of Latin America's trade. It is estimated that Japan's imports from the region increased from 265 million dollars in 1953 to 309 millions in 1954, and that exports to Latin America rose from 104 million to 201 million dollars.

Certain aspects of Latin America's trade and payments problems have come into focus more clearly during the past two years. (See table 24.) Since the termination of Marshall Plan aid and the exceptional demand for primary products generated by the Korean War, a number of commodities either have been accumulated in large domestic surpluses or have shown a strong tendency to over-supply on world markets. Apart from increased output in the dollar area, one of the main reasons for this uneasy balance of supply and demand is the remarkable expansion of agricultural production in Western Europe since 1948, to which must be added the increase of production in associated and affiliated areas where the development of primary production, started in the 1930's under the protection of preferences, has been accelerated during the post-war period.¹¹ Thus, Western Europe has largely solved its balance-of-payments problem by increasing domestic production and by transferring some of its primary imports from dollar to non-dollar sources. This

Table 23. Latin America: Trade balances, by principal monetary areas

(Thousand million dollars)

	United States, Canada and rest of the dollar area ^a	Sterling area, OEEC countries and dependencies	Other non-dollar countries (including intra-Latin American trade and unidentified transactions)	Total
1953				
Exports.....	4.1	2.7	1.2	8.0
Imports (c.i.f.)....	3.8	2.0	0.8	6.6
BALANCE	0.3	0.7	0.4	1.4
1954				
Exports.....	3.9	3.0	1.1	8.0
Imports (c.i.f.)....	4.0	2.2	1.0	7.2
BALANCE	-0.1	0.8	0.1	0.8
Variations 1953-54				
Exports.....	-0.2	0.3	-0.1	—
Imports (c.i.f.)....	0.2	0.2	0.2	0.6
BALANCE	-0.4	0.1	-0.3	-0.6

Source: Global trade figures from table 22 have been allocated by monetary areas in accordance with statistics appearing in the *Direction of International Trade*.

^a See footnote 3 of this chapter for a definition of the rest of the dollar area.

¹¹ See chapters I and IV of the *Economic Survey of Europe in 1954*, United Nations publication, Sales No.: 1955.II.E.2.

explains to a large extent why the position of some of the countries of Latin America and of certain of its products have improved in recent years, but it also poses serious problems for other countries and other commodities.

Of the products in abundant supply, Latin American wheat and cotton compete mainly with those from dollar sources; the principal regional suppliers have been able to sell their export availabilities to European countries under bilateral compensation agreements.

Latin American wool and sugar (with the exception of the United States quota) compete with the sterling and affiliated areas and are dependent for outlets upon both dollar and non-dollar markets. To supplement domestic production and its supplies from overseas affiliated areas, Europe must import these two commodities from elsewhere—mainly from Latin America. The region is thus a residual

supplier, especially of sugar, since affiliated areas enjoy preferential treatment. Wool imports by the principal European countries, payments for which are all settled in inconvertible currencies, in 1953/54, stood at 38 thousand tons less than in 1952/53; yet imports from the sterling area increased from 586 thousand tons to 613 thousand during 1953/54, while those from Latin America fell from 147 thousand to 74 thousand tons.

The sugar market presents a particularly difficult problem for Cuba, since, under its international agreements, discriminatory arrangements cannot be made whereby Cuba could, in effect, give preference to imports of European goods in exchange for sugar exports.¹²

Exports of tin, which also has a chronic surplus problem, are strictly allocated under the International Tin Agreement. In 1954, Bolivia's exports were almost evenly divided between the United States and the United Kingdom, the latter country paying in sterling.

Other commodities are subject to varying conditions of payment. Chilean nitrate is sold for dollars only in the United States. Copper, zinc and lead are minerals which must be purchased with dollars, a factor which has stimulated mining investment in the sterling and affiliated areas to develop soft-currency supplies.

Coffee exports to Europe are becoming largely a non-dollar commodity. Even during the brief period when coffee was in short supply, Brazil and Colombia made important gains in European markets through compensation agreements, while the Central American countries, which sell exclusively for dollars lost ground.

Latin America has its own dollar problem arising out of trade within the region, where disequilibrium in the trade of fuel, raw materials and essential foodstuffs, causes a heavy drain on the scanty dollar reserves of some countries.¹³

III. FOREIGN INVESTMENT AND ITS SERVICING

It has already been noted that a decline probably took place in foreign investment during 1954 in Latin America, accompanied by an increase in investment income remittances. The adverse effect of these trends on the region's capacity to import was moderate, however, except in the case of some mineral-producing countries. The fall in net foreign capital receipts was entirely brought about by reduced private investment, which offset the greater inflow of official capital. The sharply increased outflow of Latin American short-term and long-term funds probably played a more important role in this reduction than the drop in the investment of foreign enterprises. As will be seen below, the activity of international investment institutions rose substantially during the course of the year, particularly with respect to new loan authorizations.

Owing to the lack of more general statistics, recent investment trends must be analysed in terms of dollar move-

Table 24. Latin America: Exports of selected commodities, by monetary areas, 1953-54

	(Millions of dollars)			
	Dollar area ^a		Western Europe	
	1953 ^b	1954 ^b	1953 ^b	1954 ^b
<i>Argentina</i>				
Wheat and maize.....	—	—	69	135
Wool.....	81	40	95	40
Meat.....	34	20	79	83
<i>Brazil</i>				
Coffee.....	450	386	195	244
Cotton.....	3	2	22	105
Cacao.....	31	44	12	34
<i>Chile</i>				
Copper.....	169	128	14	36
<i>Uruguay</i>				
Wool.....	41	14	99	64
Meat.....	6	8	21	10
<i>Bolivia^c</i>				
Tin.....	38	21	} 31	31
Tungsten.....	12	17		
<i>Colombia</i>				
Coffee.....	330	395	27	47
<i>Mexico</i>				
Metals.....	65	33	2	13
Cotton.....	8	2	31	25
Coffee.....	59	79	8	8
<i>Cuba</i>				
Sugar.....	306	285	135	51
<i>Peru^d</i>				
Cotton.....	..	..	32	43
Sugar.....	10	12	1	2
Metals.....	53	61	5	9
<i>Other principal exporters of coffee and cacao</i>				
Coffee.....	162	167	69	59
Cacao.....	23	39	3	5
<i>Other products.....</i>	10	5	39	40

Source: Economic Commission for Latin America, based on the United Nations Commodity Trade Statistics.

^a In this table the dollar area includes only the United States and Canada for commodity exports.

^b January-September.

^c Commodity data for Bolivia refer to the entire year and are taken from United States Department of Commerce statistics. The exports to Europe represent imports by the United Kingdom, as they appear in *Direction of International Trade*.

^d Peruvian commodity exports to the United States refer to the entire year and are supplied by the United States Department of Commerce.

¹² Cuba's trade balances with Europe have been consistently large. In recent years, imports from the United Kingdom have covered roughly one-quarter of its exports to that country—the largest importer of Cuban sugar after the United States.

¹³ The problem of payments within the region will be analysed in a study on inter-Latin-American trade to be presented to the sixth session of the Commission in August 1955.

ments alone (see table 25),¹⁴ although it is likely that the 1954 decline in net dollar investment was offset to some degree by an increased inflow of non-dollar capital.

The changes that took place during 1954 confirmed most of the over-all tendencies which have been in evidence for a number of years: a persistent rise in financial services, a decline in total capital receipts, increased capital outflow, and a steady rise in the rate of official investment. In 1954, however, the decline in net capital receipts was due to the increased capital outflow that resulted from the sharp upturn of Latin American investment in the United States. Most of the total (86 million dollars) was in the form of purchases of United States Government bonds, the remainder being invested in other types of securities. Although these investments are presented as long-term capital movements (see table 25), it is probable that a substantial share of the purchases of United States Government securities in fact represents short-term investment, since these securities, owing to their great liquidity, are virtually equivalent to bank deposits. Dollar holdings of Latin American individuals and businesses in United States banks also increased considerably during the year, owing mainly to the flight of short-term capital from Mexico.¹⁵ In recent years, private short-term and long-term assets of Latin Americans in the United States have been increasing at a greater rate than United States private long-term investments in Latin America. The outflow of capital from Latin America in 1954 raised the aggregate to well above 1,700 million dollars, or over one-quarter of the value of United States private long-term investments in the region. (See table 26.)

The 1954 decline in United States private direct investments in Latin America was mainly due to the completion of important mining projects in Chile, Peru and Venezuela. Mining investment in the region expanded under the stimulus of an increased demand for minerals at the outset of the Korean War, and grew steadily until 1953, in which year it accounted for 55 per cent of the increase in total United States direct investment in the region. Investment in mining played an especially important role in the formation of Peru's capacity to import during 1951-53, and the decline in investment during 1954 reduced the country's capacity to import, notwithstanding the sharp expansion in exports.¹⁶ However, the develop-

¹⁴ The figures in table 25 refer exclusively to capital flows, excluding reinvestments. Table I of the appendix to this chapter, dealing with the balance of payments, includes reinvestment both in foreign capital investment and in investment income, so far as available statistics permit. Thus the net movement of remittances or earnings minus investment is comparable in both tables.

¹⁵ Although, as is thought, a substantial proportion of the capital which left Mexico in the first six months returned during the second half year, private Mexican deposits in United States banks were not affected and rose from 90 million dollars in March 1954 to 140 millions in December.

¹⁶ In Venezuela, the fall in investment was offset by the expansion of exports, while in Chile the decline in real investment was slight compared with that which took place in 1953. The large statistical reduction in foreign investment in Chile during 1954, which affects the investment figure in table I of the appendix to this chapter, is due to the *disinvestment* in copper stocks, which were accumulated in 1953 and not sold until the following year. This inventory adjustment does not, however, affect United States statistics on investment in Chile.

Table 25. Latin America: Movement of long-term capital from the United States

(Millions of dollars)

	1947-49 (Annual averages)	1950-52	1953	1954 ^a
(A) Inflow				
1. New United States direct investment ^b	333	193	104	93
2. Export-Import Bank ^c	69	61	98	100
3. International Bank for Reconstruction and Development	36 ^d	54	50	69
4. Non-military United States grants	30	17	23	38
TOTAL	468	325	275	300
(B) Outflow				
1. Dollar debt repatriation ^e	52	39	42	(35)
2. Amortization of official loans ^f	30	43	48	49
3. Latin American investment in the United States ^g	3	17	21	116
TOTAL	85	99	111	200
(C) Net Movement	383	226	164	100
(D) Financial services				
1. On private investment ^h	444	590	617	630
2. On official long-term loans ⁱ	11	20	33	43
TOTAL	455	610	650	673

Source: Official publications.

^a Partially estimated.

^b Since the figures in the table refer to capital flows, reinvestments are excluded. Also excluded are transfers of ships to Panamanian and Honduran registry.

^c Only long-term disbursements for development purposes are included. Balance-of-payments credits for the period covered were as follows: 24 million dollars to Chile in 1950; 92 and 5 million dollars to Argentina in 1951 and 1952 respectively; 300 and 9 million dollars to Brazil in 1953 and 1954 respectively.

^d This figure refers to 1949 only, the year that the Bank began disbursements to Latin America.

^e Repurchase of dollar bonds and compensation paid by Mexico for the agrarian and oil expropriations.

^f Excluded are amortization payments made on balance-of-payments loans mentioned in note ^g above.

^g Figures taken from United States balance-of-payments statistics, referring to purchases of commercial and United States government securities.

^h Includes remittances on both direct and portfolio investment. Excludes remittances from the operation of ships mentioned in note ^b.

ⁱ Those interest payments on loans of the International Bank are for Reconstruction and Development.

ment of large copper deposits in Peru, which will begin in 1955, promises a renewal of mining investment on a large scale.

Investment trends, during 1954, in most of the other sectors of economic activity tended to offset the effect of the decline in mining investment. There was an increase in the flow to miscellaneous activities,¹⁷ while the large disinvestment in manufacturing, which took place in 1953, came to an end. (See table 27.)

¹⁷ Mainly wholesale and retail trade, finance and insurance.

Table 26. Latin America: Total private investments and assets in the United States

	1946	1950	1953	1954 ^a
(Millions of dollars)				
Long-term investments in securities other than those of the United States Government ^b	584	608	681	711
United States Government obligations ^b	124	186	320	406
Private short-term assets ^a	305 ^a	433	563	630
TOTAL	1,013	1,227	1,564	1,747
Long-term United States private investments in Latin America....	3,603	5,143	6,383	6,550
Percentage relation of Latin America to United States investments.....	28.1	23.9	24.5	26.7

Source: United States Department of Commerce.

^a Estimated by ECLA.

^b In this table, it is assumed that all United States securities owned by Latin America are privately held.

^c Excludes holdings of some smaller countries, for which a breakdown by type of holders is not available.

The disinvestment in manufacturing during 1953 reflected mainly the special nature of this type of investment in Brazil. In 1952, owing to the severe shortage of foreign exchange, foreign manufacturing enterprises in that country were permitted to finance imports of raw materials and other supplies with credits extended by parent companies in the United States. In 1953, these credits were

being repaid and the relatively low figure for investment in this activity during 1954 indicates that perhaps the reimbursements were continuing throughout that year, thus offsetting a possible increase in the capital flow from other countries.

The greater part of new investment in petroleum has recently been directed to countries other than Venezuela, where further expansion of facilities can be financed from retained earnings. There was apparently some decline in investment in this sector during 1954, but the plans of certain major oil companies call for a considerable expansion of investment in several countries during 1955, including Argentina and Bolivia.¹⁸

The trend towards increased investment in miscellaneous activities, mainly internal trade and finance, was reinforced in 1954. This development is undoubtedly related to the profitability of investment in the sector concerned, which enjoys a rate of return second only to that of petroleum. Another tendency to be observed (see table 27) is the rise in the share of total investment represented by retained earnings, as a result of the maturing of previous investments and the slowing down in the rate of financing completely new projects. Throughout 1947-49, reinvestment accounted for little more than 30 per cent of United States direct investment in Latin America; in 1950-52, this proportion rose to almost one-half, while, in 1953, most of the increase in the value of investment was due to retained earnings.

¹⁸ At the beginning of 1955, the Government of Argentina submitted a bill to Congress authorizing the large-scale participation of foreign oil companies in exploiting domestic petroleum resources.

Table 27. Latin America: United States direct investment and financial services, by economic activity sectors

	Petroleum					Total
	Venezuela	Other countries ^b	Manufacturing	Mining	Other ^c	
1947-49 ^a (annual averages)						
New investment.....	131	..	..	..	..	290
Reinvestment ^d	41	..	..	..	..	132
TOTAL	172	..	..	..	..	422
Income remittances.....	-151	..	..	..	..	-405
1950-52 (annual averages)						
New investment.....	-20	6	87	70	42	193
Reinvestment ^d	26	11	83	12	52	180
TOTAL	6	17	170	82	94	373
Income remittances.....	-244	-32	-64	-77	-152	-572
1953						
New investment.....	27	41	-83	119	—	104
Reinvestment ^d	26	4	54	11	36	131
TOTAL	53	45	-29	130	36	235
Income remittances.....	-310	-38	-68	-35	-149	-600
1954 ^e						
New investment.....	34		2	6	31	93
Income remittances.....	..		..	..	..	-615

Source: United States Department of Commerce.

^a Most of the investment given in the column "Other" has been in miscellaneous activities, principally wholesale and retail trade, insurance and finance.

^b Excludes transactions of United States controlled tanker fleets in Panama and Honduras.

^c A breakdown by economic activity sectors for 1947-49 is not available in the series revised

according to the 1950 investment census.

^d Reinvestment of subsidiaries only. Branch company reinvestments are included in new investments.

^e The distribution by economic activity sectors in 1954 is based on official estimates of trends during the first nine months. Income remittances are estimated from balance-of-payments statistics. No data are available on reinvestments.

The steady rise in the servicing of foreign investment is mainly a result of greater income payments from Venezuela, which doubled between 1947-49 and 1953, while total Latin American remittances rose by only 50 per cent. In 1953, Venezuelan petroleum remittances accounted for over half of the regional aggregate paid to the United States. Nevertheless, foreign investment in petroleum has more than doubled Venezuela's export receipts since the end of the war, even after the subtraction of these remittances. Apart from the miscellaneous sector, income payments from other activities either have remained relatively stable or have declined in recent years. The drop in non-petroleum remittances during 1953 was mainly caused by lower prices for sugar and minerals, and this was the result of the lower profits of the companies producing them. No data on investment income payments by economic activity sectors are available for 1954.¹⁹

¹⁹ Great interest, particularly among investment circles in the United States, has recently been shown in the tendency for investment income remittances to grow at a more rapid rate than the flow of new capital to Latin America. It has rightly been emphasized that this phenomenon does not necessarily imply that foreign investment tends to drain away the foreign exchange resources of the

During the course of the year under review, increased activity was noted on the part of both capital-importing and capital-exporting countries, aimed at stimulating private investment in Latin America. The recent legislation

Latin American nations; on the contrary, it contributes to enlarging exports, to expanding domestic production for the replacement of imports and to increasing productivity and labour employment; moreover, it represents a substantial source of tax revenue for these countries. A clear statement of this point of view was recently made by the National Foreign Trade Council of New York.

As emphasized in the *Economic Survey of Latin America, 1953*, the impact of foreign investment on the balance of payments cannot be measured solely from the net movement of foreign exchange arising from capital movements and remittances. However, apart from the amount of export earnings or import substitution generated by foreign financing, it should be recognized that most Latin American countries have never been able to attain an adequate rate of investment without recourse to substantial additional foreign capital to supplement domestic savings.

Another problem related to foreign investment which should receive greater attention is how to give wider application to the benefits of technology, improved management techniques and the higher productivity provided by foreign capital to a relatively small number of enterprises, i.e., to extend these advantages, which have hitherto played their most important role in the extractive industries, to other sectors of the economy.

Table 28. Latin America: New development credits authorized by the Export-Import Bank and the International Bank for Reconstruction and Development
(Millions of dollars)

	<i>Ex-Imbank</i> ^a		<i>International Bank</i>		<i>Total</i>	
	(A)	(B)	(A)	(B)	(A)	(B)
A. By period:						
1953.....	16	17.3	10	72.7	26	90.0
1954						
First half.....	14	27.6	3	29.0	17	56.6
Second half.....	14	113.5	4	82.1	18	195.6
1955						
First quarter.....	16	75.4	3	25.0 ^b	19	109.4
B. By country (1954-55):						
Peru.....	2	101.3	4	27.2	6	128.5
Mexico.....	8	3.2	1	61.0	9	64.2
Argentina.....	2	62.5	—	—	2	62.5
Brazil.....	10	7.0	1	18.8	11	25.8
Colombia.....	7	3.0	2	9.5	9	12.5
Ecuador.....	2	3.7	1	8.5	3	12.2
Cuba.....	1	12.0	—	—	1	12.0
El Salvador.....	—	—	1	11.1	1	11.1
Paraguay.....	1	7.2	—	—	1	7.2
Other countries and miscellaneous credits.....	11	16.7	—	—	11	16.7
TOTAL	44	216.6	10	136.1	54	352.7
C. By activity (1954-55):						
Mining.....	6	101.7	—	—	6	101.7
Transport.....	12	14.3	3	80.6	15	94.9
Industry.....	15	70.8	1	2.5	16	73.3
Electric power.....	4	16.3	2	23.3	6	39.6
Agriculture.....	—	—	4	29.7	4	29.7
Others.....	7	13.5	—	—	7	13.5
TOTAL	44	216.6	10	136.1	54	352.7

Source: Official publications.

Note: (A) = Number, (B) = Amount.

^a Includes miscellaneous export credits to Latin America not ear-marked for specific countries. Also included are increased authorizations in old credits as well as new loans. The non-development type credits extended to Brazil are

excluded from the table; these loans were as follows: 300 million dollars to consolidate the commercial debt, in 1953; a 15 million dollar one-year credit for the purchase of wheat, in June 1954; 75 million dollars for general purchases in the United States, in February 1955.

^b To 20 April 1955.

passed in Argentina and Chile²⁰ to encourage new foreign investment began to bear its first fruit during 1954; Bolivia and Paraguay were also actively engaged in encouraging such investment through the extension of special guarantees and exemptions. The Export-Import Bank signed its first transfer risk insurance policy with a firm investing in Venezuela, while the United States Foreign Operations Administration energetically pursued its programme of entering into investment expropriation and convertibility guarantees with a number of countries in the region; Costa Rica and Peru are the most recent nations to sign such agreements with the United States.²¹

As mentioned earlier, one of the most noteworthy developments in the field of foreign investment during 1954 was the marked increase in the loan activity of the International Bank for Reconstruction and Development and of the Export-Import Bank. After authorizing development-type credits to Latin America to a value of 90 million and 57 million dollars in 1953 and in the first half of 1954, respectively, they approved total credits of 196 million dollars during the second half of the year and over 100 millions in the first quarter of 1955. (See table 28.) New loans were somewhat widely distributed both by country and by economic activity, with the majority of the Latin American countries participating in them. Mining, transport and industry were the leading activities which were favoured, followed by electric energy and agriculture. About two-thirds of new authorizations during 1954-55 were accounted for by three big loans: the Export-Import Bank's 100-million-dollar credit to Peru to aid a private United States company in exploiting a new copper mine; a 60-million-dollar loan by the same institution to Argentina to finance the construction of an integrated steel mill; and, lastly, the International Bank's 61-million-dollar authorization to Mexico for the renovation and modernization of the Pacific Railway.

The increase in the loan activity of the Export-Import Bank was particularly noticeable during the second half of 1954. After a complete review of the lending policy of the institution, at mid-year it was decided to restore the administrative independence of the Export-Import Bank (which had been reduced in 1953), to increase lending authority by 500 million dollars and not to restrict operations for purposes of budget economy. Despite the declared policy of competing neither with private capital nor with the International Bank for Reconstruction and Development, and notwithstanding the increased emphasis given to medium-term "exporter credits",²² long-term development-type loans have received substantial encouragement. (See again table 28.)

Another trend of considerable significance in the field of foreign investment is the revival in the flow of portfolio capital from several groups of international banking syndicates. As from 1951, the Banque de Paris et des

²⁰ The Chilean Congress is also currently considering a fundamental revision of tax policy towards the large foreign mining companies in the country, to provide incentives for an expansion of production.

²¹ The Inter-American Investment Conference, held at New Orleans early in 1955, also helped to improve the investment environment and mutual understanding between capital-exporting and receiving countries, as well as creating a permanent liaison office to aid new investors interested in financing enterprises in Latin America.

²² See chapter III for a description of these "exporter credits".

Pays-Bas began investing in Colombia's Paz de Río steel plant and National Railways, agreeing in 1954 to an additional 50-million-dollar credit to finance further expansion of the plant. A new contract between the same bank and the Government of Peru provides financial resources for the completion, within two years, of the Chimbote steel mill and of a hydro-electric installation. In addition, private banking and industry groups in Belgium, the United Kingdom, Western Germany and other European countries have shown interest in the financing of public works in Colombia and Ecuador and in the supply of manufactured goods to Bolivia. Similarly, the recent revision of the Edge Act in the United States has enabled a New York bank to form a consortium of investment bankers for the provision of credits to Latin America; it was this bank which extended a 200-million-dollar loan to Brazil towards the end of 1954 to consolidate the country's short-term debt to the United States Treasury. Another bank in the United States has also been active in the region; its most recent loan is now being negotiated with Ecuador to finance public works in Guayaquil.²³

This trend has been motivated mainly by the two following factors: first, with one exception, all the Latin American republics in default on foreign debt payments have agreed to renew debt servicing during the post-war period and this has undoubtedly encouraged the granting of further credit; in the second place, increased bank financing has responded to the need of foreign exporters to finance their sales of capital goods on increasingly competitive terms.²⁴

Thus, although there was a continued reduction of foreign investment in Latin America during 1954, a combination of recent favourable trends promises a revival of such investment in the near future.

IV. FINANCING OF THE NET BALANCES OF PAYMENTS

Excluding Bolivia and Brazil, the general deterioration in Latin America's balance-of-payments position during 1954 did not exert great pressure on the region's international financial resources. This was largely a consequence of the sharply increased flow of short-term funds to Latin America, mainly private trade credits from the United States, which were estimated at 300 million dollars. Nevertheless, the accumulation of gold and foreign exchange, following the balance-of-payments deficits of 1951-52, came to an end during the third quarter of 1953. Thereafter, reserves declined and had fallen by approximately

²³ Other interesting transactions of United States banks have been carried out in recent months. A group of banks, formed by the Chase National Bank, the Canadian Bank of Commerce, the First National City Bank of New York and *Crédit Suisse*, recently provided a 3-million-dollar one-year loan to the Mexican Light and Power Company to buy back company bonds held by the Mexican Government. There has been an increase in private bank participation in loans of the Export-Import Bank and the International Bank for Reconstruction and Development. The most recent transaction of this type was the agreement of the First National Bank of Boston and the Bank of Manhattan Company to finance 3 millions of the International Bank's 5-million-dollar loan to the *Caja de Crédito Agrario de Colombia*. Interest has also been shown in registering more companies operating in Latin America on the New York Stock Exchange, and during the first part of 1955 a private Venezuelan finance company announced the floating of 3.3 million dollars in promissory notes on the New York market.

²⁴ For further details, see chapter III.

150 million dollars at the end of 1954. Since the region probably had an over-all payments surplus with non-dollar countries, in marked contrast with its dollar deficit, the decline principally affected gold and dollar holdings. However, there were very great differences in trends by countries. (See table 29.)

These trends can be roughly divided into four categories during the period, and table 29 shows that the total loss of gold and dollars was accounted for by the first group, which was composed of only four countries—Bolivia, Brazil, Chile and Cuba. The hard currency reserves of these countries declined by over 250 million dollars and would have fallen more sharply still, had not special factors intervened. The decline in Cuban reserves was the greatest, reflecting not only a reduced trade balance, but also a large outflow of domestic capital. Much of this outflow was apparently absorbed by the purchase of securities in the United States. The drop in Chilean dollar holdings resulted from the decline in copper exports to the dollar area; this fall would have been even greater if Chile had not financed part of its dollar deficit by purchasing some of its hard currency imports on credit. An increase in Chile's reserves of soft currency, principally sterling, partially offset the loss of dollars.

The fall in Bolivian and Brazilian reserves does not entirely reveal the difficulties these countries have experienced in financing their net balances of payments, inasmuch as they were obliged to depend heavily upon external financial assistance. Almost all of Brazil's 1954 deficit

Table 29. Latin America: Holdings of gold and short-term dollar assets by governments and banks

(Millions of dollars)

	1953		1954
	(3rd Quarter)	(2nd Quarter)	(4th Quarter)
TOTAL Latin America	3,106	3,026	2,997
Bolivia.....	30	25	21
Brazil.....	443	362	388
Chile.....	103	64	68
Cuba.....	517	458	354
	1,092	910	831
Argentina.....	477	507	492
Uruguay.....	259	291	277
Venezuela.....	519	558	527
Central America.....	157	177	134
	1,412	1,533	1,430
Mexico.....	235	145	266
Peru.....	66	57	69
	301	202	334
Colombia.....	172	257	279
Dominican Republic.....	37	54	55
	209	311	334

Sources: International Monetary Fund, *International Financial Statistics*, and Board of Governors, Federal Reserve Bank of Washington.

Note: Figures refer to end of quarters.

was in hard currency and, since the country's liquid reserves had already been considerably reduced, a series of loans from the United States was obtained with the national gold stock as security. A 200-million-dollar credit from a private New York bank consolidated two previous short-term loans from the United States Treasury and was followed in the first months of 1955 by another 75 million dollars from the Export-Import Bank. In addition, the latter bank granted a one-year loan of 15 million dollars during 1954 to finance wheat imports. The gravity of Brazil's financial position may be appreciated by the fact that the total balance-of-payments indebtedness in dollars is far greater than the aggregate gold and hard currency reserves and almost equal to total export earnings in convertible currencies during 1954. Although most of the debt is repayable over a number of years, its servicing will undoubtedly require a drastic curtailment of the present high dollar imports, since Brazilian exports have tended to shift away from the dollar area. As noted earlier, the possibility of economizing on dollar imports has been limited because the major hard-currency import, petroleum, cannot at present be replaced by sterling purchases.

Bolivia also has a fundamental disequilibrium in its balance of payments, a condition which has been threatening for the last few years, since it became apparent that tin exports were inadequate to support the economy of the country. During 1954, the substantial deficit, which was probably equal to 90 per cent of total international reserves at the beginning of the year, was largely financed by aid from the United States. A solution to Bolivia's international financial difficulties is being sought in the diversification of exports and in the increased substitution of domestic production for imports, such measures being aided by foreign grants and investment during the transition period. In this respect, it is interesting to note that the best prospects for diversifying exports lie in the expansion of inter-Latin-American trade of Bolivia's petroleum; this would also help to alleviate balance-of-payments pressures in neighbouring countries, particularly Brazil.

The reserves of the second group of countries—Argentina, Uruguay, Venezuela and the Central American republics—continued to increase after the third quarter of 1953 until the end of the first half of 1954, when a moderate decline nullified the gains so that end-of-year reserves stood at approximately the same level as at the beginning of the period. It should be noted that Argentina and Uruguay were among those countries which suffered sharply reduced trade balances with the United States in 1954, but favourable balances were of such proportions during the preceding year that serious repercussions were avoided. Moreover, Argentina, in contrast with Brazil, has apparently been able to reduce hard-currency purchases other than those from the United States. The apparent deterioration in the reserve position of the Central American countries was mainly seasonal, while the fall in Venezuela's gold and dollar holdings lacked significance, given that country's expanding capacity to import and its firm reserve position.

The reserves of Mexico and Peru followed the prevailing downward trend in the region as a whole, until mid-1954, when a considerable recovery began to take place. The improvement in Peru was subsequent to the elimination of the trade deficits which had affected the country

during 1952-53; the recovery in Mexico largely arose from increased confidence in the peso after the devaluation of April 1954. The drain in dollar holdings during the first part of the year was mainly a consequence of the strong flight of capital, the partial return of which aided the restoration of reserves thereafter. The receipt of 22.5 million dollars from the 50-million-dollar stand-by agreement, arranged with the International Monetary Fund in April, also aided Mexico's recovery.

The reserves of the last group of countries — Colombia and the Dominican Republic—continued to rise throughout most of 1954. In the case of the latter country, this trend is explained by the fact that greater export earnings were not utilized to increase imports, in contrast with the situation in the majority of the other countries exporting coffee and cacao, such as Ecuador (where reserves remained stable during the period). The rise in Colombia's gold and dollar holdings was brought about by a considerable accumulation of outstanding trade debts and a 25-million-dollar credit granted by the International Monetary Fund towards the end of 1954, although Colombia suffered a deficit in its balance of payments.²⁵

In a number of Latin American countries, the renewed payments disequilibrium by monetary areas — a dollar deficit accompanied by surpluses or equilibrium in other currencies — has led to renewed interest in international currency convertibility and the search for markets and sources of supply outside the dollar area.²⁶ With reference to currency convertibility, important advances were made in 1954 which merit special mention. Of particular significance was the re-opening of the London gold market after fifteen years of inactivity and the permission granted for free trading of certain raw materials purchased with dollars on the London market. The Government of the United Kingdom made sterling transferable among all countries outside the dollar and sterling area, removing restrictions on capital transactions and exchange rates. A similar policy was followed by Western Germany in the gradual freeing of blocked Deutsche mark accounts and in permitting the transfer of foreign assets. The National Bank of Belgium has also authorized Uruguay to pay for purchases from Benelux in the currency of any member country of the European Payments Union. It will be observed that most of these measures apply to increased flexibility in payments connected with non-dollar transactions; but even though dollar convertibility has apparently been further postponed, these are signs of progress which in themselves may serve to alleviate certain payments problems of individual Latin American countries.

An unfavourable trend with regard to payments by monetary areas, however, continued into 1954. This was the use of "switch" deals in the disposal of products exported by Latin America. Certain European countries with which Latin America has sizable bilateral debts have re-exported these products at a discount, to the dollar and sterling areas, in an effort to reduce outstanding balances in compensation accounts, with the result that direct sales in hard currencies by Latin American exporters have been adversely affected. This trend is undoubtedly responsible

in part for the 1954 decline in the dollar exports of some countries of the region. The situation will of course tend to correct itself as the debtor position of these Latin American republics is reduced.²⁷

V. THE VOLUME AND PRICES OF FOREIGN TRADE

The year 1954 was particularly notable for the opposing trends which were experienced in the volume and prices of Latin America's trade. The sharp rise in the volume of imports contrasted strongly with the stable or slightly declining level of import prices, while differences were even more pronounced for exports. In general, those countries which increased the volume of their exports were able to do so by cutting prices, while others, which enjoyed higher prices, had to be content with a reduced export volume. For the region as a whole, however, the improvement in the terms of trade was somewhat greater than the decline in the export quantum.

The volume and price fluctuations in the trade of the principal countries exporting coffee and cacao were especially severe in 1954. (See table 30.) The 10 per cent decline in the volume of sales was amply offset, however, by the 23 per cent improvement in the terms of trade of these countries which was almost exactly equal to the rise in the quantum of imports.²⁸ This is the group of countries which has, in fact, been mainly responsible for the growth of Latin America's imports, not only in 1954, but also over the course of the last few years. In effect, their 1954 import quantum was almost 44 per cent greater than that of 1950, while the volume of total Latin American imports was some 20 per cent above the 1950 level. These countries have been able to finance the greater volume of imports from their steadily expanding capacity to import. (See chart XIV.)²⁹

Volume and price trends in Venezuela's trade have been exceptional during the period under consideration. In 1954, both the quantum and the unit value of exports increased, although, in distinct contrast with trends of previous years, the latter rose more sharply than the former. Thus, since 1950, Venezuela's growing volume of imports has been counterbalanced by its increased export quantum, but in 1954 it was the improvement in the terms of trade that enabled the country to finance the 7 per cent increase in purchases without suffering a reduction in the favourable trade balance.

In recent years (with the exception of 1951), the other countries of the region³⁰ have barely been able to maintain their 1950 import quantum, while both the quantum of exports and the terms of trade have shown no tendency to

²⁵ It should be noted, however, that "switch" transactions have also taken place in the reverse direction; some Latin American countries have been able to obtain dollar goods through payment in other currencies. (See chapter III.)

²⁶ As will be seen in section VI of this chapter, there was a rise in both the volume and the unit value of cacao exports, in contrast with those of coffee.

²⁷ The influence of Brazil in this group of countries is especially great, but the analysis applies with equal force to the other coffee and cacao exporting countries. The recent growth in Brazil's capacity to import has lagged, however, with the result that increased imports have had to be financed largely with credit.

²⁸ Bolivia, Chile, Cuba, Honduras, Mexico, Peru and the River Plate countries.

²⁹ In 1955, however, the situation changed somewhat. Reserves fell sharply during the first months of the year, when the commercial debts were being liquidated.

³⁰ See chapter III for a fuller discussion of this problem.

Table 30. Latin America: Indices of the volume and terms of foreign trade
(1950=100)

	1951	1952	1953	1954	Percentage variation 1953 to 1954
<i>Countries exporting coffee and cacao</i> ^a					
Export quantum.....	107.6	98.0	110.8	99.4	-10.3
Import quantum.....	135.0	135.4	116.6	144.0	23.5
Terms of trade.....	99.7	95.6	98.1	120.8	23.1
<i>Venezuela</i>					
Export quantum.....	113.4	121.0	119.5	124.6	4.3
Import quantum.....	99.5	107.3	108.4	116.2	7.2
Terms of trade.....	95.2	91.8	91.2	103.2	13.2
<i>Other countries</i>					
Export quantum.....	89.6	81.1	100.3	94.9	- 5.4
Import quantum.....	123.9	108.1	100.5	104.3	3.8
Terms of trade.....	110.8	96.5	98.1	92.7	- 5.5
<i>Total</i>					
Export quantum.....	99.8	94.0	107.3	101.9	- 5.0
Import quantum.....	124.6	117.2	106.9	119.2	11.5
Terms of trade.....	103.2	94.4	96.8	104.3	7.7

Source: Economic Commission for Latin America, based on official statistics.

^a Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua.

improve. There was some recovery during 1953, but in the following year the situation was again reversed, both export volume and unit value declining by rather more than 5 per cent for the group as a whole. The moderate increase of imports in the latter year was accounted for almost entirely by the River Plate countries, which were forced to accept sharply reduced trade balances in the face of a price decline that more than offset the expansion in their export volume. The situation in most of the other countries underwent no important changes during 1954, although in the second half of the year, demand and prices for some metals became perceptibly firmer.³¹

In view of the very different country trends in the growth of the region's aggregate imports, it is interesting to note how the composition of imports has changed as between different countries. Certain over-all tendencies have been apparent in recent years, such as the continued reduction in the share of consumer goods, and the rise in the proportion of fuels and—since 1952—of raw materials, within total imports. It appears that the share of capital goods has been especially sensitive to the pressure exerted by other imports upon the availability of foreign exchange. (See table 31.)

Fuels represent a particularly large proportion of the imports of Argentina, Brazil and Chile and this share has been increasing rapidly in recent years. By 1953, the first two countries spent more foreign exchange on fuel imports, which represented over 18 per cent of total imports, than on consumer goods. In Argentina, increased fuel purchases have been financed by reducing the share of consumer goods and raw materials, while the proportion of capital goods imports has been maintained more or less at the 1950 level. In Brazil, and especially in Chile, the share of capital goods has fallen, since the reduction in consumer goods purchases has been insufficient to finance the

³¹ Trends in the quantum of exports, by countries, were discussed in detail in the *Economic Survey of Latin America, 1953* (document E/CN.12/358), United Nations publication, Sales No.: 1954.II.G.1.

Table 31. Latin America: Composition of imports
(Percentages of quantum)

	1950	1951	1952	1953	1954 ^a
Consumer goods.....	32.7	31.4	31.0	30.5	28.9
Raw materials.....	22.6	22.0	19.6	21.2	22.8
Fuels.....	8.0	7.9	9.2	10.1	10.8
Capital goods.....	36.7	38.7	40.2	38.2	37.5

Source: Economic Commission for Latin America, based on official statistics.

^a Provisional.

rise in both fuel and raw materials imports.³² The proportion of consumer goods in the imports of both countries ceased to decline after 1953, probably because a further reduction in purchases of foodstuffs and other essential commodities could only have been made at the expense of creating hardships for consumers. Furthermore, the three countries concerned are obliged, through bilateral trading agreements, to purchase certain quantities of consumer goods in return for their export products which are difficult to market; in Chile, the foreign exchange earned from such exports as wine and gold can be utilized for the purchase of commodities which are prohibited under general exchange regulations. Thus, the substitution of domestic production for consumer goods imports has probably reached such a low level in these three countries (about 15 per cent in Argentina and Brazil and 25 per cent in Chile), that further reductions will be increasingly difficult.

For the other major countries of Latin America, fuels represent less than 10 per cent of imports, while consumer

³² In Argentina, the share of capital goods has fluctuated around 40 per cent, while in Brazil and Chile these goods fell from 47 and 37 per cent of total imports in 1952, to 36 and 26 per cent in 1954, respectively.

goods occupy a considerably larger share of available foreign exchange than they do in Argentina and Brazil. In Cuba, the latter class of goods still represents about 60 per cent of imports, although fuels have steadily assumed a greater relative importance. Conversely, capital goods purchases have fluctuated around 15 per cent. In Mexico, the share of capital goods declined after 1951, owing in part to the Government's deflationary policy. Nevertheless, in 1954, they rose slightly above the level of the previous year, and still represented well over 40 per cent of imports. In this country, the composition of other imports shows no definite trend, although in 1954 a sharp increase in the domestic production of foodstuffs enabled imports of these goods to be reduced from the abnormally high level of the previous year.

Trends in the import composition of Colombia and Venezuela are particularly interesting, since these are the only two major countries of the region which have experienced a sustained growth in the capacity to import during the period under review. As might be expected, the share of capital goods has grown somewhat, accounting for nearly 50 per cent of total imports during the last few years, although there have been no important changes in the relative share of any of the other groups. Nevertheless, it should be noted that in Venezuela, where consumer goods have achieved particular importance, there has been a steady decline in the share of such imports since 1950, although in 1954 they still represented 40 per cent of aggregate foreign purchases. This is undoubtedly the result of recent progress made in the industrialization of the country.

Since 1950, Uruguay has experienced an exceptional increase in the share of capital goods imports, as a result of the contraction in consumer goods purchases. The latter have fallen from 30 to 18 per cent of total imports while the former have risen from 34 to 45 per cent; the share of the other two groups—raw materials and fuels—have remained relatively stable. Peru also appears to have experienced the same type of shift, although the base year 1950 was abnormally low for capital goods imports. Nevertheless, purchases of these goods rose significantly until 1953, mainly on account of increased foreign investment. However, a subsequent drop in the level of this foreign investment brought about a reduction in the share of capital goods, which was small, as a result of the severe curtailment of aggregate imports. A definite tendency for consumer goods to decline in importance was also apparent; by 1954, they had reached the relatively low level of 20 per cent of the total.

VI. VOLUME AND PRICES OF PRINCIPAL EXPORTS

Although, since 1947, the volume of exports for the region as a whole has fluctuated within relatively narrow limits, without any discernible tendency to increase from year to year, there have been very marked variations in the export volume of individual products, as well as in the prices. Only petroleum, cotton, bananas, feed grains and coffee⁸⁸ show a persistent tendency to rise. These trends, as well as the fluctuations suffered by other tropical products and by minerals, have been principally determined

⁸⁸ Exceptional circumstances brought about the 1954 decline.

Table 32. Latin America: Quantum of staple exports

	1950 (Millions of dollars)	1951	1952	1953	1954	Percentage variation 1953 to 1954	
						Quantum	Prices
I. Products exported principally by the River Plate countries							
Wheat.....	205.6	88.7	2.3	91.3	106.0	16.1	-14.3
Maize.....	46.6	80.3	85.0	134.3	207.2	101.2	0.7
Meat.....	70.4	73.6	59.4	66.6	66.3	- 0.5	0.3
Hides.....	150.8	60.4	72.2	64.6	63.5	- 1.7	-19.8
Wool.....	331.1	41.9	62.5	103.3	65.8	-36.3	- 2.5
Linseed oil.....	86.8	122.0	21.3	63.1	118.2	87.3	-24.5
TOTAL	891.2	68.1	47.2	88.8	90.5	1.9	- 9.9
II. Tropical products							
Coffee.....	1,423.3	107.1	109.2	117.6	95.2	-19.0	33.8
Cacao.....	123.3	78.4	62.9	87.8	101.5	15.6	55.8
Bananas.....	54.4	106.2	127.2	131.2	150.6	14.8	2.3
Cotton.....	291.6	103.9	85.6	130.8	170.9	30.7	6.3
Sugar.....	630.0	105.3	99.5	115.4	90.7	-21.4	- 4.4
TOTAL	2,522.6	104.8	102.2	117.4	104.4	-11.1	20.4
III. Mining products							
Petroleum.....	1,326.8	112.2	118.3	114.5	123.0	7.4	9.5
Copper.....	177.0	98.4	110.3	94.0	107.5	14.4	-15.3
Lead.....	82.2	82.8	90.9	92.2	90.1	- 2.3	4.4
Zinc.....	40.6	121.9	147.5	104.4	106.2	1.7	- 3.5
Tin.....	72.0	106.2	102.5	111.7	92.5	-17.2	- 3.3
Nitrate.....	70.8	95.9	79.4	74.2	94.8	27.8	- 5.6
TOTAL	1,769.4	108.8	114.7	109.4	117.1	7.0	5.9
GRAND TOTAL	5,183.5	99.9	97.0	109.8	106.3	- 3.2	7.9

Source: Economic Commission for Latin America, based on official statistics.

by factors affecting world demand; and, since the commodities concerned form 80 per cent of aggregate Latin American exports, the above-mentioned factors have been the most important in the development of the region's trade. Limitations of supply have, on the other hand, been of great significance in depressing the level of exports from the River Plate republics, particularly from Argentina.³⁴ Although there was some recovery in the exports of these countries during 1953 and 1954, animal products did not share in this improvement, and in 1954 the small over-all increase of the quantum in relation to 1953 was accomplished at the expense of a 10 per cent fall in prices. (See table 32.)

Commodity price fluctuations during 1953-54 ranged from a 25 per cent decline for linseed oil to a 55 per cent rise for cacao. The widest fluctuations during the year occurred in coffee and cacao. The steep rise which began at the end of 1953 was determined mainly by speculative factors based on short crop prospects for Brazilian coffee and African cacao. When supply began to exceed demand in the United States, it soon became evident that the rise in coffee prices was much higher than would normally have been necessary to reflect the demand-supply relationship.³⁵ Another reason for the downturn in prices was that the effect of damage to the Brazilian crop in 1953 was apparently over-estimated, since the loss was partially offset by larger production in other areas and a reduction of stocks. The price decline may also have been somewhat sharpened by the withdrawal of buyers from the market in anticipation of further declines, after Brazil had given an incentive to exporters through exchange subsidies.

Prospects for coffee exports depend mainly on an expansion of consumption in Europe, since it appears probable that exports to the United States will grow relatively slowly after recovering the 1953 level. Before the Second World War, Latin America provided 500 thousand tons, or 80 per cent, of Western Europe's coffee requirements. A further 11 per cent came from Asia and 9 per cent from Africa. In 1950, Latin America's share had fallen to 56 per cent and that of Africa, where production had increased two-and-a-half times, had risen to 40 per cent. Africa's coffee exports have increased since 1950, but its share of Europe's aggregate imports fell to 35 per cent in 1954, while that of Latin America rose to 60 per cent. Nevertheless, the region's sales were 150 thousand tons short of the pre-war figure. *Per capita* consumption in Europe is still well below that of the pre-war period, but it may be expected to rise considerably, in view of the steady and pronounced growth of *per capita* national income. However, competition for the European market may be intensified as African production expands under the stimulus of higher prices.

The existence of wheat surpluses in the United States and Canada did not prevent Argentina from disposing of a relatively large harvest on foreign markets. Although prices declined, they remained above the minimum estab-

lished by the International Wheat Agreement, mainly on account of the policy adopted by the United States Government of withholding supplies from the market which might unduly disrupt normal trade and depress prices. Argentina sold the wheat harvest through bilateral agreements, enlarging its markets both in Europe and in the Far East. The United Kingdom, as well as Belgium and the Netherlands, resumed imports on a limited scale, and, as already mentioned, Western Germany became an important factor in Argentina's trade. International trade in wheat is influenced not only by huge surpluses, but also by a contracting market in Europe, where domestic production has enabled overseas imports to be reduced by one-third since 1950.

European imports of feed grains have been maintained, Argentina contributing a larger share of the total. In 1953-54, this country supplied one-third of Western Europe's import requirements and thus acquired an important source of export revenue.

The fall in the region's sugar exports during 1954 reflected both short-term fluctuations in demand and fundamental changes in world sugar production and trade. Relatively low production levels in European countries created a strong demand for Latin American, mainly Cuban, sugar during the early post-war period. At a later stage this demand was given considerable support by purchases under Marshall Plan aid, thus enabling *per capita* consumption in Western Europe to reach a higher level than in the pre-war period. Meanwhile, Cuba's exports to the United States were stabilized under the latter country's Sugar Act of 1948, ranging between 2.4 and 2.8 million tons during the years 1946-54.

By 1951, it had become evident that the expansion of sugar production in Europe and in its affiliated areas would make inroads into Latin America's European markets. In 1951-52, Europe's over-all production was 50 per cent higher than the average for 1934-38, and that of the sterling and affiliated areas stood about one-third higher. Since then, production has continued to rise to a point where the overseas areas having ties with Europe produced 65 per cent more sugar in 1953/54 than in the pre-war period. Although Cuba began to feel the effects of this expansion in 1952, exports to Europe rose again during 1953, owing to the exceptionally large shipments to the United Kingdom, where reserve stocks were being built up in anticipation of the end of sugar rationing. This revival of demand was short-lived; the reduction of exports to the United Kingdom was particularly severe, falling from 1,200 thousand tons in 1953 to 250 thousand in 1954. At the same time, Cuba's sugar exports to Western Germany practically disappeared, declining to 27 thousand tons in 1954 as compared with 230 thousand in 1953. As may be seen in table IV of the appendix to this chapter, the loss of exports to the United Kingdom and Western Germany, including a small reduction in those to other European countries, were about equal to the 1954 decline of Cuba's aggregate sugar exports. A mention must be made of smaller shipments to Japan—270 thousand tons in 1954 against 470 thousand in the preceding year—which were, however, offset by greater exports to other Asian countries, principally India.

Wool exports fell even further than sugar, and, as already noted, the drop had a particularly strong impact upon Uruguay's balance of payments. Although factors similar to those influencing the level of sugar exports—

³⁴ The quantum of Argentina's exports has in fact been well below the level of both the pre-war and the post-war periods.

³⁵ See the United States Federal Trade Commission, *Economic Report of the Investigation of Coffee Prices: Summary and Conclusions*, Washington, D.C., 30 July 1954; and United States Department of Agriculture, *Supply and Demand in Relation to the Price of Coffee* (Foreign Agriculture Circular), Washington, D.C., 16 December 1954.

the liquidation of stocks and competition from affiliated areas—assumed an important role in depressing demand, wool exports from the River Plate countries were subject to other tendencies of a short-term nature. Firstly, exports in 1953 were unusually high compared with those in 1951 and 1952, mainly owing to a reduction of reserve stocks in Argentina. Conversely, in 1954, Argentina's exports were probably somewhat restricted by the re-establishment of an 8 per cent tax on exports and by the suspension of the more favourable exchange rate for sterling sales. Nevertheless, considering the weakened position of Uruguay on the United States and European markets, it would appear that a slackening of demand, and sterling area competition, were decisive in lowering sales.⁹⁶

Latin America's cotton exports, which in 1953 were more than 50 per cent above those of the preceding year, increased by another 30 per cent during 1954, raising the quantum to 673 thousand tons; this was about twice as much as the annual average for 1934-38 and represented roughly 25 per cent of the world trade in cotton. As in the case of wheat, United States price supports, combined with a policy of orderly marketing, acted as a stabilizing influence upon Latin America's exports, which were purchased mainly with inconvertible currencies. In 1954, the United States Congress passed the Agricultural Trade Development Act, which provides for the disposal of cotton surpluses, with payment in inconvertible currencies under specified conditions; Congress also reaffirmed its intention to continue the policy of maintaining the existing pattern of competition in world markets. Another favourable factor for Latin America's export trade has been the low level of cotton exports from India and

⁹⁶ The process of the substitution of wool by synthetic fibres has also tended to weaken world demand for this commodity. In the United States, during 1954, the use of wool in garment manufacture was 25 per cent below that of 1953, according to a study prepared by the United States Department of Agriculture. The same report maintains that the average *per capita* consumption of wool in clothing manufacture during 1947-53 was 10 per cent below the pre-war level.

Pakistan, compared with shipments during the pre-war period. It should also be noted that part of the greater volume in 1954 arose from sales of reserve stocks accumulated by Brazil; nevertheless, most of the larger shipments abroad during the past two years reflect a higher production for export in Brazil, Mexico and Peru.

There was no change in the volume or price of meat exports, which continued to be governed by supply availabilities rather than by demand. Hide exports were also maintained, although there was a 20 per cent price decline. The market for this commodity, which is an important export item for the River Plate countries, has weakened considerably in recent years, because hides have been replaced by plastics and rubber goods and lower purchases were made by the United States Army.

The market for non-ferrous metals, which was uncertain during the first half of 1954, became reasonably strong towards the end of the year. Tin prices recovered when market prospects became more favourable through the establishment of the International Tin Agreement, which provides for the creation of a reserve and minimum and maximum prices. Zinc and lead prices also returned to their 1953 levels when the United States Government resumed purchase for the strategic reserve. The copper situation altered completely from one of surplus and an impending further decline, during the first six months of 1954, to shortages in both the United States and Europe at the end of the year. A continued high rate of industrial expansion in Western Europe and an upsurge of industrial activity in the United States, following the recession, created a demand that could not be met by existing production. A contraction of output in the United States and in Chile at the beginning of the year, when supplies were considered sufficient for the market, and a further contraction, later in 1954, which arose from disputes both in these two countries and in the Central African Federation, aggravated the scarcity of supplies. Although the market became firmer during the last quarter of the year, Chilean copper prices were on the average lower than in 1953.

STATISTICAL APPENDIX

Table I. Latin America: Balance of payments, 1950-54

(Thousand million dollars)

	1950	1951	1952	1953 ^a	1954 ^b
I. <i>Capacity to import</i>					
(A) Exports of goods (f.o.b.)	6.69	7.88	7.12	7.75	7.89
Exports of services	0.55	0.67	0.74	0.78	0.74
TOTAL	7.24	8.55	7.86	8.53	8.63
(B) Net investment of foreign capital					
Private long-term	0.11	0.37	0.55	0.37	0.26
Official long-term	0.11	0.13	0.22	0.19	0.23
Servicing of the external debt and amortization	-0.21	-0.14	-0.13	-0.14	-0.15
Private short-term	0.02	0.01	-0.06	-0.05	-0.06
TOTAL	0.03	0.37	0.58	0.36	0.28
(C) Remittances of interest and profits	-0.79	-0.91	-0.85	-0.78	-0.85
TOTAL I	6.48	8.01	7.60	8.10	8.05
II. <i>Imports of goods and services</i>					
(A) Goods (f.o.b.)	4.91	6.94	6.81	5.86	6.48
(B) Services	1.18	1.60	1.52	1.53	1.55
TOTAL II	6.09	8.54	8.33	7.39	8.03
III. <i>Balance of payments</i>	0.39	-0.53	-0.74	0.72	0.02
IV. <i>Errors and omissions</i>	-0.11	—	0.01	-0.14	..
V. <i>Compensatory transactions</i>					
(A) Changes in gold and foreign exchange reserves	0.20	-0.01	0.06	0.29	..
(B) Compensation accounts and commercial arrears (-increase)	-0.04	-0.19	-0.16	0.27	..
(C) Other short-term credits (-increase)	0.12	-0.33	-0.63	0.02	..

Source: Economic Commission for Latin America, based on statistics of the International Monetary Fund.

Note: Intra-regional transactions have been included.

^a Provisional figures.

^b Estimates.

Table II. Argentina and Brazil: Balance of payments by monetary areas^a

(Millions of dollars)

	1950	1951	1952	1953	1954
1. <i>Argentina</i>					
(a) <i>With the dollar area^b</i>					
Capacity to import	411	459	330	369	324
Imports of goods and services	319	503	450	335	303
(b) <i>With the rest of the world</i>					
Capacity to import	782	865	509	857	817
Imports of goods and services	754	959	780	568	679
2. <i>Brazil</i>					
(a) <i>With the dollar area^b</i>					
Capacity to import	707	819	732	701	566
Imports of goods and services	555	1,158	1,129	663	810
(b) <i>With the rest of the world</i>					
Capacity to import	505	822	653	755	927
Imports of goods and services	590	946	877	697	830

Source: See table I.

^b For both Argentina and Brazil, the dollar area includes all countries with which transactions are carried out in convertible currencies.

^a Statistics employed in chart XIII.

Table III. Latin America: Capacity to import and import of goods and services^a

(Millions of dollars)

	1950	1951	1952	1953 ^b	1954
1. Brazil					
Capacity to import.....	1,253	1,689	1,453	1,565	1,591
Imports of goods and services.....	1,188	2,152	2,073	1,477	1,740
2. Other principal countries exporting coffee and cacao^d					
Capacity to import.....	836	1,019	1,124	1,208	1,385
Imports of goods and services.....	801	992	1,056	1,220	1,382
3. Venezuela					
Capacity to import.....	769	970	1,189	1,257	1,350
Imports of goods and services.....	767	920	1,047	1,082	1,180
4. River Plate countries^e					
Capacity to import.....	1,561	1,683	1,161	1,613	1,466
Imports of goods and services.....	1,413	1,857	1,540	1,181	1,406
5. Other countries^f					
Capacity to import.....	2,063	2,646	2,668	2,461	2,262
Imports of goods and services.....	1,922	2,621	2,616	2,426	2,322

Source: See table I.

^a Statistics employed in chart XIV.^b Provisional figures.^c Estimates.^d Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti and Nicaragua.^e Argentina, Paraguay and Uruguay.^f Bolivia, Chile, Cuba, Honduras, Mexico and Peru.

Table IV. Cuba: Sugar exports

	1953		1954	
	(Thousands of tons)	(Percentages)	(Thousands of tons)	(Percentages)
United States.....	2,419	45.2	2,475	60.1
Europe.....	1,923	35.9	616	15.0
United Kingdom...	1,196		249	
Western Germany..	231		27	
Others.....	496		340	
Japan.....	467	8.7	271	6.6
Others.....	545	10.2	754	18.3
TOTAL	5,354	100.0	4,116	100.0

Source: Revista del Banco Nacional de Cuba, No 1, January 1955

Chapter III

FOREIGN COMPETITION IN LATIN AMERICA AND ITS EFFECTS

INTRODUCTION

The object of the present chapter is to examine the influence of foreign competition upon the present distribution of the principal Latin American exports and imports, to analyse the causes and characteristics of the changes which have occurred and to study the effects of these events upon the economic life of the region.

The over-all development of Latin America's foreign trade during the last few years emphasizes the progress made by the European countries towards a gradual recovery of their former position.¹ In 1939, out of every 100 dollars of merchandise exported to Latin America by the United States and Europe together, 57 came from Europe and only 43 from the United States. In 1949, although the process of European reconstruction was already well advanced, the ratio stood at 32 from Western Europe and 68 from the United States. In 1954, Western Europe had advanced to almost 40 per cent.

There is a fundamental difference between the causes which determined these two successive changes of trend, before and after 1949. The progress of the United States during the first period was obviously a direct consequence of the Second World War, which abruptly broke traditional links and upset long-established balances. Thus, if United States manufacturers and exporters gained a predominant position in the markets of the region, it was principally for circumstantial reasons.

During the post-war period, on the other hand, the Western European countries were obliged to develop a vigorous policy of commercial competition, in order to recapture, branch by branch and to a greater or lesser degree, the markets of Latin America. They had to adapt their marketing and commercial methods to the changes in Latin America's economic structure and in the composition and origin of the region's imports, especially as regards machinery of all kinds.

Admittedly, the European countries had one factor in their favour: they urgently required the products of Latin America. In many cases it was because of this pressing need that Latin American countries could once again be assured of normal and regular channels for their exports. But this factor alone was insufficient to cause trade with Western Europe to regain its former proportions.

The desire for imports from the United States is still very marked in Latin America. It is underlined by statistics, in so far as they enable the ratio between imports and exports to be determined by areas. In the five-year period 1950-54, the proportion of Latin American imports from the United States which had their counterpart value in

¹ Mention was already made of this tendency in *A Study of Trade between Latin America and Europe*, document E/CN.12/225 (United Nations publication, Sales No.: 1952.II.G.2), but the trend has become more pronounced, especially during 1954.

exports to the latter did not exceed 91.1 per cent, whereas for Europe it stood at 97.1 per cent.

This greater propensity to buy from the United States explains why the countries of the Old World, in order to reach the high rate of recovery characteristic of recent years, have been obliged to perfect their competitive techniques. Two principal weapons were available: the incentive of lower prices and the granting of more liberal credit terms. Furthermore, in those areas of Latin America most affected by the dollar shortage, the European countries have largely used bilateral trade agreements to promote their exports and as a logical consequence have also been obliged to raise their imports from Latin America.

The part played by the Latin American countries in this process was not a passive one. On the contrary, the reappearance of former suppliers and the extension of competition to other countries, which, like those of the Far East, are beginning to export capital goods for the first time, have been used to bring prices down and to channel available credit facilities towards the typical activities of economic development.

In 1954, the successes recorded by the Western European countries—and also by Japan—as a result of these incentives brought about a marked change in the United States attitude towards export credits. There was, however, no parallel development as regards imports from Latin America. On the contrary, events related to various products—mainly coffee and copper—have helped to give European markets greater importance as an outlet for exports from Latin America, to the detriment of the region's capacity to import from the United States.

Another remarkable feature of the recent trade between Western Europe and the non-convertible currency area of Latin America has been the application of certain measures to reduce the rigidity of the payments system, measures which may be a prelude to new plurilateral or limited convertibility formulae.

It has also been observed that there is a shift of competition between foreign producers from simple export-import trading to a share in on-the-spot production in Latin America. Here, too, the initiative of Western Europe is much in evidence and is clearly related to that area's financial recovery and to the active reconstitution of its private capital.

As distinct from its counterpart in the United States, the Western European bank has for almost a century been a traditional promoter of long-term enterprises abroad and now appears able to recommence activities of this kind by means of loans or by participating in investments of a permanent nature. The initiative taken by a number of French banks or financial groups in Argentina, Colombia and Peru, as well as certain similar steps by German undertakings in Brazil and other Latin American countries, ap-

appears to be a move in that direction, although it is always closely related to the specific interests of the export industry. The possible development of this type of European activity and its repercussions in the shape of parallel initiative by the United States may have a pronounced influence upon the rate of Latin America's economic development in coming years.

I. CHANGES IN EXPORT DESTINATIONS

Between 1950 and 1954 significant changes took place in the distribution of Latin American exports. (See table 33.) The data for 1950 and 1953 are those of greatest interest when compared with 1954 statistics. During 1951 and 1952, indeed, two circumstantial factors intervened, the wave of buying connected with the Korean war in 1951 and the complete lack of Argentine cereals for export in 1952. Both these factors contributed to greater European purchases in the first of these years and an exceptional reduction in 1952. A comparison of 1954 with both 1950 and 1953 establishes a definite change of trend in the most recent year as regards exports to Western Europe on the one hand, and to the United States and Canada on the other. There has also been a marked increase in trade with Japan and the countries of Eastern Europe, although in the latter case the share of the trade in aggregate Latin American sales is still very low.³

Table 33. Latin America: Exports by principal destinations

(Percentages, based on dollars at current prices)

	1950	1951	1952	1953	1954
United States.....	43.0	42.6	49.1	44.6	41.1
Canada.....	2.9	3.4	4.1	3.8	3.4
Europe.....	26.4	29.3	24.5	26.1	29.4
West ^a	26.4	29.3	24.5	25.1	26.9
East ^b.....	..	..	..	1.0	2.5
Japan.....	0.9	2.9	2.1	3.0	3.0
Others ^c	26.8	21.8	20.2	22.5	23.1
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Economic Commission for Latin America, based on official statistics.

^a Includes member states of the European Payments Union, Finland, Spain and Yugoslavia.

^b Includes Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland, Romania and the USSR.

^c Includes inter-Latin-American trade and, until 1952, that of Eastern Europe and the USSR.

Nevertheless, table 33, which is based on current values, only partially reflects the changes which have taken place. The region's exports to the United States and Western Europe are so different in their composition that their dollar value at current prices masks a basic aspect of reality. The United States is largely buying those Latin American commodities which have become more expensive in the last few years, and especially during 1954. Coffee, cacao and copper represent half the value of all United

³ In current values the export trade of Latin America with the United States and Canada fell from 3,712 million dollars in 1953 to 3,569 in 1954. The value exported to the European countries as a whole rose from 2,000 million in 1953 to 2,350 million in 1954. The latter figures include exports worth 80 and 200 million dollars to Eastern European countries in 1953 and 1954, respectively.

States imports from Latin America. It is highly significant that the aggregate value of coffee purchases by the United States in 1954 was almost equivalent to the 1953 figure, whereas in volume there was a drop of 19 per cent.⁴ Furthermore, the United States purchased no cereals from Latin America, while wheat, maize and other grain comprise a considerable proportion of the European purchases.

A statistical comparison making use of constant values would therefore be far more representative of the real evolution of trade, but sufficiently detailed data are not available. Nevertheless, an analysis of the quantitative changes in the principal Latin American exports provides valuable indications and demonstrates that the changes in distribution are in fact even more extensive.

The share of Western European countries in exports of Brazilian coffee increased in volume from 20 to 37 per cent between 1950 and 1954. As regards Colombia's coffee, the proportion of European purchases rose during the same years from 6 to 11 per cent. It is remarkable that exports to the United States declined in both cases to a degree which exactly offset this rise. The change which took place in 1954 is extremely interesting, because it appears to show that European markets are much less sensitive to price increases.⁴ The two large coffee exporters—Brazil and Colombia—are redoubling their efforts to expand sales in Western and Eastern Europe.⁵

In 1954, Europe was the largest purchaser of Argentine wheat, buying more than 50 per cent of total exports as compared with a little over 30 per cent in 1950 and 1953. The increase in European purchases of all Argentina's cereal exports is still more evident; in fact, they rose from 46 to 78 per cent from 1953 to 1954. These facts are closely linked with the circumstance that imports of Argentine wheat by Brazil have declined.⁶ (In this case, Europe has partly been a substitute market, whereas for coffee the development of the European market depends upon a factor of lasting influence, namely the gradual recovery of the average pre-war consumption level.) There is something paradoxical in the fact that these greater sales of Latin American wheat to Europe are offset by large European sales of the same cereal to Latin America. Brazil, finding Argentine prices too high, imported wheat not only from the United States but also from Turkey and Finland. (In the latter case the grain was of Soviet origin.) Mention should also be made of the growing importance of Brazilian imports of wheat and flour from Uruguay.

In the frozen meat market, the USSR has been making substantial purchases since 1953 from Argentina and

⁴ Despite large reductions in the quantum of almost all products, the total f.o.b. value of United States imports from Latin America scarcely declined by 4 per cent in 1954.

⁴ During the first half of 1954, when prices were at a peak, the volume of Brazilian coffee exports to Europe increased by 2.3 per cent, whereas to the United States it fell by 29.0 per cent.

⁵ As a result of these efforts an agreement was signed in early 1955 between the *Federación Colombiana de Productores de Café* and trade representatives of the East German Government, covering the sale of coffee for a value of 7 million dollars, to be paid for mainly in the form of industrial equipment, agricultural machinery and fertilizers.

⁶ The cause of this decline appears to have been the disparity between the agreed price for Argentine wheat, 95 dollars per ton, and the international price which was considerably lower. For 1955 the new Argentine-Brazil agreement envisages a price of 71.25 dollars f.o.b. for the export of 1.2 million tons. The improved yield of the new Argentine harvest will, however, enable the volume of sales to the other countries to be maintained.

Uruguay. During that year over 7 thousand tons of mutton and pork were bought, while it is estimated that in 1954 the total stood at about 70 thousand tons, on this occasion including some 30 thousand tons of beef from Uruguay.⁷

In 1954, the volume of *wool* exports from both Argentina and Uruguay declined by more than 35 per cent in relation to the previous year. European and United States purchases from Argentina fell by a somewhat higher percentage. On the other hand, Western European purchasers from Uruguay were proportionately far higher, while those of the United States were much lower. Certain direct purchases by the Eastern European countries, and British re-exports to the same destination, contributed to the maintenance of Uruguay's wool trade with Europe. Uruguay also found in Europe a substitute market for wool tops when tariff measures adopted by the United States curtailed exports to that country.

As regards Argentine *hides* and *leather*, the considerable increase in purchases by the USSR, which absorbed 20 per cent of all such exports, represented an important stabilizing factor for the market and more than offset the almost complete lack of interest shown by United States buyers.⁸

The substantial rise in Brazilian *cotton* sales during 1954, linked with more normal export prices, may chiefly be attributed to Western European purchases, especially those of the United Kingdom. A 42 per cent increase in Peruvian cotton sales to Japan also took place.

European countries greatly increased their purchases of *non-ferrous metals*. According to official Chilean statement, in 1954 total sales of *copper* to Europe reached 185 thousand tons, approximately 50 per cent of output. This is a complete reversal of the trend during recent years. From 1950 to 1953 exports of Chilean copper to Europe fell from 15 to 9 per cent, while those to the United States rose from 78 to 88 per cent. Most of the copper shipped to Europe was dispatched to London, which, thanks to the re-opening of the futures market, has again become an active centre for re-exports. It would be premature to consider the shift which has occurred in the distribution of Chilean copper sales as permanent. Many factors have determined this change, an important element being the difference in prices between the free market in London and the controlled market in the United States.

The United States market is also being replaced by the United Kingdom in the case of Bolivian *tin*, where the change is taking place slowly and steadily. In 1950, Bolivia was exporting 45 per cent of the aggregate output to the United Kingdom and 55 per cent to the United States. The figures have since altered and in 1954 they stood at 58 and 41 per cent respectively; the remaining 1 per cent is now sold to Argentina, whose purchases began in 1953 and doubled in the succeeding year.

Chilean sales of *nitrate* again increased in 1954, mainly through the establishment of new markets, although exports to Europe and the United States did not vary. To a

more limited extent, there were even some signs of a proportional increase in shipments to Europe, the share of which rose from 28 to 32 per cent of aggregate Chilean exports from 1950 to 1954. The proportion bought by the United States was somewhat more than 40 per cent.

Certain isolated events should also be mentioned, because they may mark the beginning of new trade currents of a permanent nature. Into this category fall Soviet purchases of much of the accumulated stock of Argentine *linseed*, as well as the sudden importance acquired by *pine-wood* exports from Brazil to the market of the United Kingdom. During the first ten months of 1954 Great Britain spent more than four million pounds sterling on such timber, which thus became second only to cotton among Brazilian exports to that destination. The United Kingdom provided a new market for Brazil's *iron ore*, most of which had previously been shipped to the United States, where, however, it has now been displaced by ore from Venezuela.

Although, in all the products mentioned above, there has been a broad tendency towards greater trade with Europe and a reduction of exports to the United States, other products, such as cacao, petroleum and sugar, have not shown this trend.

Cacao deserves a special mention because Latin America not only maintained both the quantum and value of its exports to the United States, but even increased its share in the latter's total imports, at the expense of Africa.

As regards *petroleum*, the general increase in imports by the United States—a little over 5 per cent in value during the first ten months of 1954—was exclusively to the benefit of Latin American exporters.

Sugar provides a different example. The notable increase in the percentage share of the United States in Cuban exports is due to lower Cuban sales to the remaining markets; while United States purchases remained relatively stable thanks to the special quota system laid down in the Sugar Act. In addition, by means of bilateral agreements Cuba has succeeded in augmenting its sales to France, the German Federal Republic and the United Kingdom.⁹ Large-scale Japanese purchases have so encouraged the Peruvian sugar market that Japan has since 1954 become the main importer of sugar from this source.

II. CHANGES IN IMPORT SOURCES

The changing trend of the distribution of Latin America's exports is also reflected in the distribution of imports. The percentage reduction of imports from the United States appears to be much sharper than the reduction of exports to that country. But it should be noted that the breakdown of imports by products does not show the same differences in regard to origin as are observed for exports in regard to destination, nor are the differences in the latter of a fundamental nature. It may therefore be assumed that the data based on import values (see table 34) accurately correspond to the changes which have occurred in imports.

An additional characteristic of imports is the fact that during 1954 no abrupt change is apparent in their sources. The tendency, manifested in earlier years, towards a proportional reduction in imports from the United States, in favour of the Western European countries and Japan, be-

⁷ In relation to the export quantum of meat and derived products from Argentina and Uruguay, Soviet purchases rose from 2 to 20 per cent from 1953 to 1954.

⁸ Advances in synthetic products directly affect the volume of imports. Such progress is more marked in the United States than elsewhere.

⁹ At the beginning of 1955, through the intermediary of a commercial firm in New York, a contract was signed for the delivery of up to 350 thousand tons to the USSR.

came more pronounced. At a later stage in this chapter an analysis will be made of the factors which have caused this trend and which have been apparent in the endeavours of the European industrial countries, Japan and to some extent Canada, to gain or recover their position on the Latin American market. First, however, the changes in some of the region's main imports must be examined.

As regards *iron and steel products*, by 1953 European industry was already competing actively with exports from the United States, because products of the former could be sold at lower prices. The interim report of the Committee on Banking and Currency of the United States Senate, under the chairmanship of Senator Homer E. Capehart, stated that in late 1953 European countries could offer iron and steel products at prices which were 10 per cent—and in some cases 40 per cent—lower than those of United States producers.¹⁰ The regional shift away from United States industry is apparent both in countries with free convertibility and in those where foreign trade is governed by bilateral agreements. In Venezuela, for example, the share of United States products in aggregate imports of unfinished iron and steel goods declined, at current prices, from 32 per cent in 1952 to 28 per cent in 1953. Since there was a further drop to only 5 per cent of the total in 1954, United States producers of these goods have been almost eliminated from the market by European competition. For finished products, however, such as tin-plate, rolled products and sheet prepared for specific purposes, United States producers defended their position more stoutly. A similar phenomenon occurred in Argentina, where the United States share in iron and steel imports, already down to 6 per cent in 1953, fell to 2.6 per cent in the first eight months of 1954. In this case Western Europe was not the only successful competitor.¹¹ During the last two years competition from Japan has been very active,

its share in Argentine imports in 1953 reaching 11 per cent and, during the first eight months of 1954, 24 per cent.¹² The value of Argentina's imports from the USSR stood at 12 million dollars from January to August 1954, or three times higher than those from the United States. According to information from a trade source,¹³ the prices quoted by the USSR were appreciably lower than those of Western Europe. This was not the case with Japanese prices, which explains why negotiations between Argentina and Japan have hitherto exclusively taken the form of barter agreements.

In the *cement* market, European industry maintains a considerable advantage over its United States competitors because its prices are normally 25 per cent lower. But on account of the high incidence of freight charges on the c.i.f. price of cement, United States exporters have been able to maintain their predominant position in Mexico and Cuba.¹⁴ Western Germany has in recent years been the largest cement exporter to the other countries of Latin America, followed by Denmark, Sweden and the United Kingdom. In addition, especially since early 1954, active competition from Eastern Europe has been in evidence. At that time Poland concluded a barter agreement with Argentina for the delivery, among other products, of 200 thousand tons of cement. Other subsequent agreements of a similar kind have placed Poland in a leading position among Argentina's suppliers.

The outstanding feature of *fuel* imports is the penetration of the Argentine market by the Eastern European countries. Imports of Soviet petroleum, which were negligible until September 1954, represented as much as 15 per cent of all such imports during the fourth quarter.¹⁵ In the case of *coal*, supplies from the United States have been almost completely superseded by shipments from Europe. A comparison of imports into Argentina, by origin, is highly significant. (See table 35.)

Table 34. Latin America: Imports, by principal sources

(Percentages, based on dollars at current prices)

	1950	1951	1952	1953	1954
United States.....	62.0	60.3	60.9	59.6	56.7
Canada.....	3.2	3.3	5.1	4.1	2.9
Europe.....	33.8	34.9	33.0	34.2	36.8
West ^a	33.8	34.9	33.0	33.5	35.2
East ^b	—	—	—	0.7	1.6
Japan.....	1.0	1.5	1.0	2.1	3.6
TOTAL ^c	100.0	100.0	100.0	100.0	100.0

Source: Economic Commission for Latin America, based on official statistics of the United States and publications of the Organization for European Economic Co-operation.

^a Includes member states of the European Payments Union, Finland, Spain and Yugoslavia.

^b Includes Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland, Romania and the USSR.

^c Accounts for only 80–85 per cent of total Latin American imports. Other sources have been excluded because sufficiently reliable data were not available.

¹⁰ A typical example is the bid of Belgian black wire on the Peruvian market at 118 dollars per ton, the United States price being 150 dollars.

¹¹ The main European exporters to Latin American markets in this sector are at present France and the Belgo-Luxemburg Union, followed by Western Germany and the United Kingdom.

Table 35. Argentina: Principal coal imports

(Thousands of tons)

	1951	1954
United States.....	1,286	24
United Kingdom.....	442	542
Poland.....	136	651
USSR.....	..	103

Sources: For 1951: Official statistics; for 1954: *Review of the River Plate*.

It is clear from the foregoing that competition has led to considerable changes in the sources of the raw materials and fuels imported by the Latin American countries. When primary or semi-finished products are concerned, as a

¹² For the whole year Japanese exports of iron and steel products reached 300 thousand tons to Argentina and 117 thousand to Brazil. Together with India, these countries are the principal markets for Japanese heavy industry.

¹³ Cf. *McGraw Hill American Letter* of 3 April 1954.

¹⁴ As a result of Mexico's increased production capacity for cement, imports will probably no longer be required in 1955. Mexico may even show an exportable surplus, provided that the high freight costs are not a handicap. In December 1954, it was announced in Buenos Aires that arrangements had been completed to import 50 thousand tons of Mexican cement.

¹⁵ This rate was not maintained during the first two months of 1955.

general rule, competition is apparent in the field of prices, and changes in import origin can usually be accomplished frequently and easily. But the case of manufactured products, especially *machinery*, is entirely different and a new exporter who is trying to enter a market is faced with several obstacles. The exporter who has already captured the market over a period of years is in an extremely strong position because customers have become familiar with his products; in addition, inspection, repair and replacement services are already organized and the traditional exporter is better acquainted with the peculiar features of each region. This situation is intimately linked with the problems of economic development. Particular interest thus attaches to a detailed review of imports of industrial and agricultural machinery, vehicles and transport equipment over the last few years.

Available statistics for the years 1951 and 1953 clearly indicate the tendency towards a relative increase in imports of European machinery to the detriment of exports from the United States. Considerable progress was also made by Canadian exports. (See table 36.)

The trend during 1954 cannot yet be accurately determined from these data. United States statistics for exports to Latin America during the first half-year show an increase of 7 per cent, at current values, for machinery in general;¹⁶ the principal factor was a marked recovery in tractors and agricultural implements. But this percentage is appreciably lower than the increase in aggregate Latin American imports. Data on machinery imports into Venezuela during the first eight months indicate another percentage decline in the share of the United States (from 83.3 to 78.2 per cent), although it was partly offset by higher imports of passenger cars. Statistics for Argentina during the same period also demonstrate a decline in imports from the United States, the reason in this case lying solely in curtailed purchases of agricultural machinery, again partly offset by an increase in vehicles.

A tentative conclusion is that during 1954 the earlier relative decline in United States exports of machinery to the region continued, although its rate probably slackened. It appears certain, on the other hand, that there was fresh progress, both absolute and relative, in Western European exports to Latin America, reflected not only in the decline of shipments from the United States, but also in losses by Canada, which were proportionately much greater. Imports of machinery from Eastern European countries, which are expected to reach a substantial value according to a number of bilateral agreements, will not begin to take effect until 1955.

Nevertheless, if the effects of competition for the different types of machinery are examined in detail, some important disparities may be noted. Thus, until 1953, despite its over-all reverses, the United States had succeeded in improving its relative position at the expense of European producers in a number of major branches (electric generators and passenger cars, for example). In addition, while a comparison of United States exports with those from Europe as a whole is justifiable from the Latin American standpoint, it is obvious that Western European competi-

¹⁶ It is interesting to note the increasing importance attached by United States exporters to the Latin American market, at the expense of exports to Europe. Over the same period the aggregate value of United States machinery exports to the whole world declined by 7 per cent.

Table 36. Latin America: Sources of imports of machinery and equipment

(Percentages of total)

Group	Source	1951	1952	1953
Equipment for Transport	United States.....	72.8	64.7	66.0
	Canada.....	3.0	8.3	6.2
	Western Europe.....	24.2	27.0	27.8
	TOTAL	100.0	100.0	100.0
Energy.....	United States.....	60.4	59.0	60.2
	Canada.....	2.9	4.3	2.5
	Western Europe.....	36.7	36.7	37.3
	TOTAL	100.0	100.0	100.0
Agriculture	United States.....	77.3	70.9	67.4
	Canada.....	6.0	7.5	6.4
	Western Europe.....	16.7	21.6	26.2
	TOTAL	100.0	100.0	100.0
Industry	United States.....	70.4	63.8	63.3
	Canada.....	2.5	2.7	2.0
	Western Europe.....	27.1	33.5	34.7
	TOTAL	100.0	100.0	100.0
Total ^{a b}	United States.....	70.5	63.6	63.9
	Canada.....	3.1	5.5	3.9
	Western Europe.....	26.4	30.9	32.2
	GRAND TOTAL	100.0	100.0	100.0

Source: Economic Commission for Latin America, based on data published in *Commodity Trade Statistics*, Series D, for exporter countries.

^a Owing to lack of data, Japan, the USSR and the People's Republics of Eastern Europe have not been included. Western Europe does not include Switzerland.

^b For the years 1951, 1952 and 1953, the total of the items listed amounted to 1,983, 2,033 and 1,800 million dollars, respectively, at current prices f.o.b.

^c The items include the following groups taken from the *Standard International Trade Classification*: Transport: Rail locomotives, railway and tramway coaches and vans (group 731); motor vehicles (group 732); ships (group 735). Energy: Non-electric generators (group 711); electric generators and other electrical equipment (group 721). Agriculture: Agricultural machinery and implements (group 712); tractors, other than steam (group 713). Industry: Metalworking machinery (group 715); mining, building and industrial machinery (group 716).

tion is very far from being uniform. In spite of some instances where producers in the same business, but in different countries, have pooled their efforts, the fact remains that normally each Western European country—and indeed almost every industrial enterprise within each country—acts on its own account and competes with the others just as much as with its United States or Japanese rivals. This is very clear from an analysis of the changes which have occurred since 1951.¹⁷

Between 1951 and 1953 the Western European countries almost succeeded in equalling the volume of *railway transport material* from the United States. The United Kingdom,

¹⁷ See *A Study of Trade between Latin America and Europe*. *Op. cit.*, *passim*.

however, which headed the list in 1951, was displaced by France in 1952 and the Netherlands in 1953. France still holds, together with Belgium, first place for steam locomotives and a group of French companies has successfully concluded a contract with the Argentine Government for the modernization of all such locomotives belonging to the State Railways. The Franco-Belgian predominance in rails and implements has been curtailed since 1954 by competition from the USSR and Japan. For freight rolling stock, and still more so for passenger coaches, Dutch competition is conspicuous. Western Germany has made much progress in exports of Diesel and electric locomotives, especially in Argentina, Brazil and Mexico, in competition with the United States, Great Britain and, to a lesser degree, Switzerland and Canada.

Statistics show that the European predominance in *shipbuilding* had declined somewhat between 1951 and 1953, although an ample margin in its favour still existed. But data published during the last two years demonstrate that Europe—thanks to appreciably lower prices—has regained a large share in new orders, some of which have also gone to Japan. Because of the time taken for delivery, the statistics will not begin to reflect this trend until 1955.

The *motor vehicle* market, both private and commercial, is one of the most keenly disputed in Latin America. There is a marked dissimilarity between the trends for the two classes of vehicles. As regards passenger cars, United States exporters have progressed substantially, although their prices are generally higher and they offer fewer payment facilities than their European rivals. The German industry alone was able to record some advance in this field, at least until 1953, at the cost of the other Western European producers, France, Italy and the United Kingdom. In contrast, the United States is falling behind in commercial vehicle exports, in favour not only of Europe but also of Japan.

As regards *telecommunications equipment*, British, West German and Swedish firms gained substantial contracts last year in Argentina and Colombia. United States manufacturers, however, still hold a virtual monopoly in the sale of television equipment, for which there is a good market in the larger Latin American countries; nevertheless, a West German firm has obtained a 25 per cent share in equipping the first transmitting station in Colombia.

Contracts for large-scale *public works* are linked with some imports of materials and machinery. United States companies had achieved considerable pre-eminence in this sphere, but latterly European entrepreneurs have been able to re-conquer a sizable proportion of the contracts.¹⁸

¹⁸ To quote a typical example, a contract to build grain elevators in Peru was won by a West German firm, whose tender was 50 per cent lower than the average prices offered by firms in the United States. Another instance, better known but equally worthy of mention, is the granting to a French firm of the contract to build the modern motor highway between Caracas and La Guaira. France also obtained other contracts in Colombia, Uruguay and Venezuela, frequently playing a part in their long-term financing. In the field of public works, Western Germany is also making use of barter agreements, having exchanged fourteen steel bridges with an estimated value of 5 million dollars for Colombian coffee. The USSR has also been active in this sector and an order for 50 excavating machines was placed by Argentina in March 1955. Thus outstripped by its competitors, the United States industry which produces machinery for public works has reacted in two ways. A large-scale land reclamation project is being financed and carried out in Peru and the manufacture of patented machinery has begun in Brazil.

Another highly important branch in which intense competition is developing is that of *electric motors and generators*. Before the war, Germany had risen to first place as an exporter of this type of machinery, both to the world as a whole and to Latin America individually. Having been replaced by the United States and, to a lesser extent, by the United Kingdom, Western Germany is now redoubling its efforts to regain its former predominant position. Between 1951 and 1953, however, the United States industry maintained—and even increased—the lead which it had gained over its rivals. Statistics for the first half of 1954 indicate that the rise in the absolute value of its sales to the region had come to a halt, which confirms the considerable progress of Western European firms—especially German and Swiss, but also British, French and Swedish—emphasized in trade publications since 1953. As in the case of shipbuilding, delivery periods are reflected in a fairly lengthy delay before the change in the distribution of orders will appear in the import data. The Eastern European countries are trying to take part in the competition between the present suppliers. The provision of electrical machinery appears prominently in the main agreements signed with Latin American countries during 1953 and 1954 by the USSR and Hungary, but no information on actual business in this branch is yet available. Meanwhile, in most of the contracts concluded during 1954, the countries of Western Europe succeeded in gaining a lead over United States exporters. The examples of Argentina¹⁹ and Uruguay are typical in this respect. In Brazil, United States manufacturers have raised stronger defences, but they have been unable to prevent Germany from achieving some progress. Even in Venezuela, where the United States formerly dominated the market, its share in the importation of electric plant and electric motors fell in 1954 from 73 to 62 per cent in relation to 1953, mainly to the advantage of Switzerland.

Here, as in other branches, the two factors determining the success of their European rivals are lower prices and more liberal credit terms.

Mining equipment imports represent much business in some of the Latin American countries. According to recent information, Belgian, British and French firms appear to have been most successful in such exports. Competition was especially keen in Bolivia. After the breakdown of negotiations with United States exporters, the Banco Minero and the Banco Central concluded agreements with a British group and a Belgian company. Official United States quarters admitted that the decisive factors in this case were the ample credit facilities and the lower prices offered by European firms.

In Peru, competition between Western European and United States manufacturers applies particularly to prices. For example, conveyor belts are widely used by large mining enterprises, and those from Europe, which are 30 per cent cheaper, are replacing similar equipment from the United States.

Colombia is another highly competitive market. As a result of long-term credits from one of their principal

¹⁹ From all the electrical projects provided for in the two Five-Year Plans, United States industry obtained only two contracts for the supply of small plants with a total capacity of 12 thousand kW. For the remainder, the most favourable tenders were received from France, Italy, Switzerland and Western Germany, and, in isolated cases, from Belgium and Japan.

banks, French interests have succeeded in supplying many machines and implements for modernizing the coal mines. Very recently, a Belgian trade mission offered technical assistance and the supply of equipment for the same purpose, and by way of reciprocity showed interest in increasing Belgian purchases of coffee and tropical woods.

The competition for Latin American markets is further exemplified in Argentina. An Argentine firm has obtained a loan from the Export-Import Bank to enable purchases to be made of United States equipment for developing sulphur and tungsten mining. With its own funds, however, the same enterprise bought a complete sulphur-refining plant from France. In another case, a United States firm with its chief branch in Argentina obtained authorization to import machinery to a value of 1.8 million dollars, on condition that payment would be spread over a period of not less than 42 months. No agreement was, however, reached and a British firm accepted the order.

In contrast to its position in regard to mining equipment, United States industry appears to be maintaining its lead in respect of equipment for *petroleum extraction* and refining in Latin America. Bolivia has contracted to purchase over 50 tanks and tank-wagons for storage and transport from the United States. A contract worth more than 2 million dollars was also obtained by the United States in 1954 to supply a Brazilian plant on the Amazon with equipment for refining petroleum from the Peruvian oil-field at Ganso Azul. At the end of 1953, Brazil arranged for a United States firm to plan and erect another petroleum refinery, this time in São Paulo State.

The USSR has on several occasions shown interest in supplying equipment for petroleum drilling and refining. Such material figures among the capital goods to be delivered to Argentina, and will be paid for on deferred terms, by virtue of the reciprocal trade agreement signed in 1953. More recently, a Romanian trade mission made similar offers to Chile. In its agreements with Argentina and Brazil, Japan has now joined the ranks of those countries competing for the Latin American market in machinery and materials for mining and petroleum production. The other countries involved are Austria, Italy, the Netherlands, the United Kingdom and Western Germany. In early 1954, Western Germany obtained permission from the Peruvian Government to establish a plant for petroleum derivatives, while the machinery, to a value of 8 million dollars, will be imported from the Federal Republic and will be financed by German capital.²⁰ In turn, British manufacturers were able in a single year to export machinery and equipment of all classes, to a value of more than 9 million pounds sterling, for the Venezuelan petroleum industry.

The field of *machinery for industrial production* is broad and varied; it represents one of the largest and fastest-growing branches of Latin America's imports. Enterprises producing goods of this kind are of great importance to the economies of the large industrial countries, but the level of their activity usually depends upon foreign

²⁰ The emergence of French interests in exploiting Latin American oilfields should be mentioned, because of its probable, and indeed logical, effects of shifts in machinery imports. It was announced in April 1954 that a French enterprise, a subsidiary of the Suez Canal Company, had obtained from the Venezuelan Government a petroleum concession in the State of Barinas and had invested one million dollars in the initial prospection stage.

markets. Competition for markets abroad is therefore very keen.

As regards *machinery for textile industries*, there is evidence of great activity by Japanese exporters. Relying on the Mexican industry's large-scale needs for replacements, capital from Japan has established a plant in Mexico for the manufacture of machine looms, the entire equipment of which is Japanese. This plant has a production capacity of 300 looms and 10 thousand spindles a month. By means of bilateral agreements with other countries of Latin America, Japan is attempting to export machinery of this type.

Western European firms are now supplying much machinery for the *pulp, paper and lumber industries*. In two years, between 1951 and 1953, such exports to the region more than doubled, while a corresponding curtailment of 45 per cent was observed in those from the United States and Canada.

Western Europe's competitive capacity in relation to that of the United States is well illustrated in São Paulo State (Brazil) in the case of a new mill producing woodpulp for paper manufacture. The initiative was taken by a United States firm, which invested 6 million dollars from private sources, without assistance from the Export-Import Bank. The machinery, to a total value of 4 million dollars, was purchased from France and the United Kingdom. Another company, established with Brazilian capital to manufacture pulp from bagasse, bought its entire equipment in Great Britain.²¹

In contrast to the over-all trend, the initiative for *equipment for the rubber industry* lies almost entirely in United States hands. This is particularly true of the manufacture of *tyres*, where the supply of machinery is accompanied by investments of foreign capital in the development of the industry. One large United States company, which already operates plants in Argentina, Brazil, Mexico and Uruguay, in 1954 completed the installation of a new tyre factory in Colombia and decided to build another of the most modern type, in Venezuela. In these activities, several United States firms compete among themselves.²²

As regards machinery for the *manufacture of cement*, success was achieved by Danish industry, which obtained

²¹ The development of the pulp and paper industry abroad is meeting with some opposition on the part of United States industrialists, who have requested their Government for protection. There is a new office responsible to the Department of Commerce entitled the Business and Defense Services Administration (BDSA), which aids domestic industries faced by foreign competition. This body has obtained from the Export-Import Bank an assurance that it will not finance new foreign pulp and paper industries without prior consultation with United States manufacturers. See the statements by the United States Secretary of Commerce, reported in *Business Week*, 13 March 1954, p. 196.

²² In fact, another United States group is investing 5 million dollars in the enlargement of a plant which is already operating in Colombia, and is beginning to produce tyres in Venezuela at the rate of 100 thousand units per year. The same firm is preparing to enter business in Brazil, where it will compete with a third US company. In Peru, a United States enterprise is now starting to build a plant with a production capacity of 50 thousand tyres of a new tubeless and self-sealing type. Machinery and equipment to a value of 1.5 million dollars will be received from the United States. In Bolivia, also, the lowest tender for financing the establishment of a tyre and tube factory was submitted by a United States firm. The only recent information about new developments in other countries concerns preliminary studies being carried out by a French company in Brazil.

a contract from the Uruguayan Government to build and equip a plant valued at almost one million dollars.²³ Similar business is being negotiated with Argentina and Brazil. The prospects for this industry in Denmark are so promising that the public funds at the disposal of the *Statens Eksportkreditudvalg* (Institute for Export Credit) have recently been increased from 250 to 350 million kroner, mainly to facilitate exports of machinery for the manufacture of cement. Colombia, however, has ordered the machinery required for a new plant, to the value of one million dollars from United States industry.

The expansion of the *iron and steel industry* in the region is tending to emphasize the importance of the required machinery, the origin of which is usually closely related to the source of the capital invested in such undertakings, either on a permanent basis or in the form of long-term loans. For example, a French bank has contributed very substantial funds to the financing of new iron and steel industries in Colombia and Peru. More than 90 per cent of the equipment of the Paz de Río steel mill in Colombia, valued at 40 million dollars, is of French manufacture; the share of French industry in supplying the machinery for the Chimbote plant in Peru, valued at 20 million dollars, is also considerable. At Paz de Río, only the diesel generators were ordered from the United States, while at Chimbote the electric furnaces were supplied by a Norwegian firm which presented a lower tender than its only competitor, a United States company.

Western Germany, in addition, has displayed great activity in the iron and steel industry. A large German group is combining with Mexican interests to plan the construction of a steel mill in Mexico with a capital amounting to 35 million dollars; in Argentina, industrialists from the Federal Republic are competing with United States firms for the supply of production equipment. According to official United States sources, a West German firm offered to sell a 4.5 million-dollar iron and steel plant for one million dollars less than the price quoted by its United States competitor and on seven-year credit terms. By granting longer terms, Germany was also able to sell Argentina a coking-plant worth 7 million dollars.²⁴

In Brazil, West German industry concluded an extremely important agreement with a local firm engaged in the manufacture of special steels, which had been encountering technical production difficulties. According to statements made by the Managing Director, the firm had tried in vain to obtain the collaboration of similar enterprises in the United States and France. Early in 1954, a West German firm agreed to sign a contract under the terms of which it will share its technical knowledge with the Brazilian company to enable certain types of special steel to be produced in Brazil, and in return will be granted royalties and facilities to export other grades of steel which Brazil still requires. The agreement also states that all the future machinery needed by the Brazilian enterprise will be imported from Western Germany.

Venezuela is witnessing competition for iron and steel production among several groups of varying nationalities

who are eager to gain a foothold. Firms from Japan, Norway, Switzerland, the United Kingdom, the United States and Western Germany are all making surveys, drafting plans and initiating negotiations with the Government or with private domestic interests.

As regards *transforming industries*, production of iron wire is being developed in Argentina and Chile by a Belgian firm which supplies machinery and which is preparing to establish another plant in Brazil. Several companies manufacturing steel tubing have entered production; they too are of European ownership, one in Brazil being West German, while others, in Argentina and Mexico, are financed with Italian capital.

German technicians have arrived in Bolivia to examine the possibilities of establishing a *tin* smelter.

In the *foodstuffs* group of industries, Western European firms exporting capital goods appear to be in a decidedly advantageous position. Two powdered milk plants, with British and Dutch capital respectively, are being installed in Venezuela, and in addition Italian interests are establishing flour mills. In Colombia, where United States machinery was formerly used for milling wheat, a Swiss firm has obtained a contract to build a new mill on the basis of considerably lower prices than those of its competitors. The Government of Ecuador has accepted a Swiss firm's tender for a salt refinery. In Chile, Western Germany has taken the lead in supplying equipment for the new sugar beet industry, the value of which will exceed 3 million dollars and is to be reimbursed over several years. French industrialists have reached agreement with the Bolivian Government for the purchase of sugar-mill equipment valued at about 3 million dollars and on credit terms of up to five years and a half. Contracts for equipment of a similar plant were also obtained by German industry.

The vigour of West German trade activities is clearly visible in several other branches of industrial machinery. One example represents the sale to Mexico of an offset printing press, the price of which was 26 per cent lower than bids by firms in the United States. Deserving of mention is the Brazilian Government's purchase from France of the first *atomic reactor* for installation in Latin America.

Where *machine-tools* are concerned, Western European industry is tending to oust manufacturers in the United States by virtue of its lower prices. This trend is apparent only for the more usual and traditional kinds of machinery, because the United States retains its control of the market for those more complex and modern types which are not yet or are only just beginning to be manufactured in Europe. West German competition is once again in the lead and to combat it on the Mexican market, sixteen United States manufacturers have joined to offer their products on the same payment terms as their competitors, that is, with credit granted up to three years. The USSR and the People's Republics of Eastern Europe are also taking part in this competition. The supply of machine-tools is provided for in the Argentine-Soviet trade agreement. During 1954 Argentina signed a bilateral sales agreement with Hungary for about 5 million dollars, which includes machine tools, while in July of the same year, similar purchases from Czechoslovakia, for a value of 3 million dollars, were made by Argentina.²⁵ A Franco-Belgian combine

²³ A cement plant in Peru, which entered production in February 1955, has also been equipped with Danish machinery.

²⁴ A fully equipped steel plant, originally produced in the United States for export to Czechoslovakia, was bought by an Argentine iron and steel enterprise at a greatly reduced price.

²⁵ The first cargo, shipped from Poland, arrived at the port of Buenos Aires in February 1955 and represented a 3.5 million dollar order for the Ministry of Transport.

is installing a plant in Brazil for the manufacture of certain machine-tools which have not hitherto been produced in Latin America.

The West German export trade is likewise making rapid progress in the Latin American markets for *hand tools*. According to statements by the *Fachverband Werkzeugindustrie E.V.* (Federation of Tool Manufacturers), their sales in South America represented 17.5 per cent of all such imports in 1952, and have doubled within the last two years.

Among miscellaneous appliances, *sewing-machines* are the object of lively competition. The chief rivals of the United States and Canadian industries, which formerly had almost a monopoly of the region's markets, are Japanese, German and Italian manufacturers, followed by Swedish and Swiss producers. The machines supplied by Japan are considered to be technically of a more primitive type, but their prices range from half to one-third of those for United States products. In a free and comparatively large market such as Venezuela, the sale of Japanese machines increased so substantially in 1953 that they absorbed almost 50 per cent of such imports.²⁶ In contrast, United States exporters contrived to retain their leading position in Colombia, thanks to a liberal credit policy for consumers. The value of Brazil's imports of Japanese sewing-machines rose from 5 to 62 million cruzeiros in two years. Combined Japanese and domestic interests are installing a plant in Mexico with an annual production capacity of 30 thousand machines, while factories financed in Italy and the United States are being established in Argentina and Brazil respectively.

There is also a considerable decline in imports of *typewriters and adding-machines* from the United States in favour of those from Western Europe. Western Germany is making particular progress in the export of typewriters, and the United Kingdom in that of adding-machines. Competition from Italian, Japanese, Swedish and Swiss producers is also on the increase. Under these circumstances United States and Italian firms are being obliged to organize assembly factories in Argentina, Brazil, Chile and Mexico.

The recent major efforts by many Latin American countries to recover from the delay in mechanizing agriculture has given *agricultural machinery* a high priority among imports. Vigorous competition from both Western and Eastern Europe, as well as from Japan, has substantially curtailed tractor imports from the United States. In Argentina, for instance, shipments of tractors from Western Germany at present hold the lead and have displaced the United States, which until 1947 supplied about 90 per cent of all such imports. In 1953, Argentina acquired 1,300 tractors from France and 3,600 from Czechoslovakia, the latter in exchange for hides and wool. Early in 1954, the purchase of an unspecified quantity of Soviet agricultural machinery was announced, as well as the beginning of negotiations with a British firm for operations of far-reaching importance. In 1952, British manufactures of tractors, combine harvesters and other equipment were reorganized, with the aim of furthering a sharp rise in

exports on the basis of lower prices than those quoted by the United States. Several outstanding United States companies have taken part in the development of the British industry. The first results of this reorganization became apparent in 1954, when 84 tractors were delivered to Chile, a contract was signed with Argentina for 250 50 hp Diesel tractors, and an exclusive contract with the Bolivian Government was obtained for tractors and miscellaneous agricultural implements.

Brazil purchased 370 tractors from Japan and contracted for 1,000 machines for cotton ginning patented and manufactured in Peru. Special tractors for work on coffee plantations were also ordered from Western Germany. As regards combine harvesters, the United States industry obtained fresh orders by granting three-year credits.

In Chile, where purchases of agricultural equipment are studied and planned by official bodies, imports of European, and especially of West German, origin made substantial progress at the expense of those from the United States. A comparison of the data for Chile from 1951 to 1954 is highly significant. In 1951 and 1952, of the f.o.b. value of all agricultural machinery imports, 93.4 per cent represented purchases from the United States and Canada, and 6.6 per cent imports from Western Germany. In 1953, only 77 per cent came from the United States and Canada, while Germany's share had risen to 19 per cent and the remaining 4 per cent was divided among the United Kingdom, Sweden and Denmark. In 1954, the proportion accounted for by United States and Canadian exporters fell to 71.6 per cent, Western Germany's share remained at 19.1 and that of Italy, the United Kingdom and Sweden together rose to 9.3 per cent.

An interesting example is provided by an analysis of the principles on which the Chilean authorities based their choice. Firstly, a distinction must be made between the main categories of machinery. Tractors represent about 60 per cent of the whole programme and it is mainly here that purchases from European sources have increased. The progress made by Western European exports, however, in contrast to development in many branches of industrial machinery, did not depend upon lower prices. The Chilean Government's technical services consider that although European unit prices for tractors are slightly higher than those quoted by the United States, the difference is offset by the greater sturdiness of the machines, which involves less subsequent expenditure on depreciation and replacements. Another pertinent factor is that European industry has developed simpler types of machinery which are more popular in certain agricultural sectors. Needless to say, the dollar shortage has contributed to guiding Chilean trade policy away from imports purchased in the United States and Canada.

On the other hand, more recent information confirms the trend towards a recovery in United States exports of agricultural machinery. The outstanding case occurred in Colombia, where private United States banks, in collaboration with the International Bank for Reconstruction and Development, granted a five million-dollar loan to finance the purchase of tractors and other farm equipment.

Tractors offer one of the most typical examples of the shift in foreign competition from imports to domestic production within the region. In the course of the last two years, three large foreign manufacturers—one French, another West German, and the third Italian—have con-

²⁶ During the first eight months of 1954, Japan further strengthened its position and covered 59 per cent of all imports, to the detriment of the United States, whose share sank from 30 to 9 per cent. Imports from Canada and Western Germany also declined, while the position of Italy, Spain and Switzerland improved.

cluded agreements with the Argentine Government to establish tractor factories, in which the total investment will stand at over 1,000 million pesos. Argentina's annual production capacity for tractors will thus shortly reach 13.2 thousand units, which will cover two-thirds of the farm requirements for progressive mechanization. Several European firms are also studying the possibilities of building such factories in Brazil.

III. CHANGES IN THE PATTERN OF TRADE: THEIR CAUSES AND CHARACTERISTICS

The mould in which Latin America's import and export trade was cast at the end of the Second World War was thenceforward subjected to pressure from the Western European countries, eager to recover normal supplies and to recapture markets of great importance to their industries. The more recent and gradual enlargement of Europe's share in the region's trade may therefore be regarded as the natural and logical outcome of the steady progress in European reconstruction. Furthermore, as production and gross income in Western Europe rise above pre-war levels, the flow of foodstuffs and raw materials to its markets may be expected to assume still greater proportions. The very fact that *per capita* consumption of most normal consumer goods, whether foodstuffs or manufactured commodities, is still considerably lower in Europe than in the United States, implies that greater possibilities exist for a future expansion of trade. Similarly, the industrial growth of countries where the domestic market is relatively small obliges them to devote more attention to stimulating their exports.

There are thus very solid and permanent economic grounds for the intensity with which the industrial countries of Western Europe are competing for trade. They have not lacked imagination, boldness or flexibility in confronting the sometimes complex and difficult situations which occur in Latin America. Their weapons for competition are extremely varied, the most outstanding, apart from the incentive of lower prices, being bilateral trade agreements and abundant credit facilities.

Some Latin American countries had previously been following a *bilateral trade policy* based on clearing agreements.

Bilateralism enabled them to face exceptional situations and to devise the required alternatives to payment in convertible currencies, but at no time was there any intention of establishing it as an ideal or permanent procedure for international trade.²⁷ During the post-war years, and especially since 1951, most of the countries of Western Europe, quickly followed by Japan and Eastern Europe, have contributed to the extension of the bilateral system, using it to expand their exports in exchange for a more or less parallel increase in their purchases. A discriminatory import licensing system to benefit certain countries, the allotment of foreign exchange quotas to cover imports from given sources, barter agreements and, in addition, the general pressure of the chronic dollar shortage affecting many countries, have all enabled Western Europe—principally France, Germany, Italy and the Netherlands—as likewise the USSR, the People's Republics of Eastern

Europe and Japan, to increase their exports and open up new markets in the non-convertible currency areas of Latin America. Consequently, the importance of the traditional competitive factors has declined and countries with no bilateral agreements, mainly the United States and Canada, or which have not yet engaged themselves, such as the United Kingdom, have witnessed a curtailment of exports.

Between 1950 and 1954, a change took place in the distribution among the Western European countries of exports to South America, the greater part of whose trade is governed by bilateral agreements. (See table 37.)

Table 37. Western Europe: Exports to Latin America, by countries and groups of countries

(Percentages, based on current values)

Exporter territories	1950	1951	1952	1953	1954
France, Germany, Italy, Netherlands.....	39.9	45.8	46.5	56.8	55.5
United Kingdom.....	32.0	22.8	25.0	19.5	17.2
Other EPU countries..	28.1	31.4	28.5	23.7	27.3
TOTAL EPU	100.0	100.0	100.0	100.0	100.0

Source: Economic Commission for Latin America, based on statistics of the Organization for European Economic Co-operation.

Within four years, the countries which have most assiduously cultivated bilateral trade have almost doubled the value of their exports, while in those of the remainder a slight reduction has been recorded and a considerable setback, both absolute and relative, has been suffered by exports from the United Kingdom. Nevertheless, this development cannot be attributed to the intrinsic effects of bilateralism alone, but is also due to the various forms taken by the system in recent years and, above all, to credit policy.

The use of *credit incentives* to encourage exports displays many different aspects. Within the tradition of longer terms granted directly by the exporter to foreign purchasers, greater credit facilities were furthered by industrial countries, especially those of Europe, either through public or semi-public organizations by means of direct financing, or under cover of official guarantees, by the *credit-insurance* method, which assists export financing by private banks. Since 1950, all the industrial countries of Europe, as well as Canada and Japan, have initiated or substantially developed activities of this type. The case of the United States is different and will be reviewed later.

Considerable divergencies existed, and still exist, between the methods adopted by the principal industrial countries in making use of *direct official credit*, extended by one government to another through the machinery of bilateral clearing accounts. Some examples of this method can be found among trade agreements of an earlier date, but their object was then very different. The original purpose of the liability margin temporarily authorized in such accounts was to increase the effectiveness of the clearing system, avoiding the actual transfer of funds to cover small differences which could be liquidated over the short term, in accordance with circumstantial or seasonal variations in trade. But, in the post-war period, and especially since 1950, some Western European countries have been employing the broader basis for such credit margins as an

²⁷ See statements by Argentina's Minister of Economic Affairs, published in the *Review of the River Plate*, Buenos Aires, 22 December 1954, pp. 22-23.

instrument of economic penetration with which to displace their competitors on foreign markets. The considerable progress achieved by France and Western Germany in the markets of Argentina and Brazil has largely been accomplished through a liberal credit policy. This is clearly confirmed by an examination of Brazilian foreign trade statistics for the first half of 1953, or during the period when import restrictions reached a peak. A comparison of the data for this period with those for the preceding year reveals that the current value of aggregate imports decreased by 48 per cent. Conversely, imports from the seventeen countries with which Brazil had signed bilateral clearing agreements declined by only 15 per cent, and, despite this fall, they absorbed 32 per cent of all imports, as against 20 per cent in 1952. Later, when the difficulty of financing imports became still more acute and Brazil was obliged to arrange consolidation settlements to cover the principal trade arrears, Western Germany granted longer terms for payment than, for example, the United Kingdom. More recent statistics for Brazil's imports show that during the first seven months of 1954, imports from Western Germany increased by 76 per cent, while those from Great Britain decreased by 68 per cent in relation to the same period in 1953.

Again, it is obvious that reciprocal clearing accounts offer great advantages to Latin American countries because they are of assistance in overcoming transitory difficulties in foreign trade balances. For Argentina such problems were created by the steep import rise in 1951 caused by events in Korea and the subsequent 40 per cent reduction in the value of exports in 1952, when bad weather ruined the harvests. Thus, in two years, the deficit in visible foreign trade amounted to 750 million dollars, or more than the total value of exports in 1952. To counterbalance this situation, Argentina made maximum use of reciprocal credit accounts, obtaining means of payment for an approximate total of 400 million dollars. During these two years the net balance in all the clearing agreements fell from net assets of 165 million dollars to 235 million dollars in net liabilities. On the other hand, the sum total of unliquidated payments on account stood at 300 millions, leaving assets of somewhat more than 60 million dollars in the remaining accounts. In this way the use of reciprocal credits covered more than half of Argentina's trade deficit, and financed 30 per cent of the imports.

Reciprocal credits undoubtedly played a less important role in Brazil, because the policy of bilateral trade accounts had not been adopted to the same extent as in Argentina. Nevertheless, the use of credit margins enabled Brazil to cover one-fifth of the unfavourable balance in her foreign accounts during 1951 and 1952.

By the end of 1952, the net balance of the credits obtained through reciprocal clauses in bilateral agreements had reached 343 million dollars, comprising the figures for Argentina and Brazil alone and excluding the very limited movement in the bilateral accounts of the other Latin American countries which utilize such agreements. The loans granted to Argentina and Brazil by the United Kingdom, the United States and Western Germany for consolidation of their trade arrears amounted, one year later, to 643 million dollars, of which Argentina's share was only 96 millions.

Margins of credit in clearing accounts have been used indiscriminately to cover imports of all kinds and the debit

balances outstanding when the normally short-term agreements expire are, if not carried forward or renewed, automatically converted into short-term indebtedness, which is almost always repayable in gold or in dollars. More recent years have witnessed the development of a new method—far-reaching in its significance for Latin America's economy—that of medium-term credits designed to encourage machinery imports. In most of the bilateral agreements signed or renewed since 1953 this new feature is entitled a *deferred payment clause*.

Another noteworthy cause of change in the sources of Latin American imports is the *comparative price level*. During the immediate post-war period, this consideration lost much of its importance, since the direction of Latin American purchases was decided by the need for rapid delivery in order to meet the deferred demand for capital goods. The time factor today exerts but a partial influence and, since a buyers' market now exists, prices have once more become the determining element, in so far as the limitations arising from payments agreements and the shortages of specific foreign currencies permit.

Cases already cited suggest that the prices of European products are often lower than those of goods from the United States. Lower wage-levels benefit European industry, a factor which sometimes neutralizes the effects of more fully-mechanized mass production in the United States. Another decisive element is the fact that some European countries can quote *fixed prices*, even for machinery which requires a long production period; this is possible because some governments, France for example, protect exporters by covering a possible rise in costs due to wage increases or exchange rate variations. It contrasts with the United States practice of inserting contractual price readjustment clauses, at the buyer's risk, to provide against higher costs.

There are naturally many more factors which play a part in the competition for Latin America's markets.

One of them is the lower degree of mechanization of European industry, which facilitates *greater adaptability* to the customer's requirements and to the characteristics of Latin American industry, where the size of enterprise is similar to European standards. Conversely, the diversity of European production has its disadvantages, inasmuch as the organization of efficient servicing and the rapid acquisition of spare parts and replacements is more difficult and at times proves uncertain. This situation is linked with the *commercial organization* of exporters, a field in which United States industry is still well in the lead. Another point in this country's favour, especially for durable manufactured consumer goods, is the number of world-famous proprietary brands manufactured in the United States.

Yet another element is represented by *co-operation between several firms* in undertaking works or projects on a fairly large scale in the same or in several countries. Although this practice is not as yet very widespread,²⁸ collaboration between either rival or mutually complementary firms has already taken place in several instances. There are examples of understandings of this kind between French and Belgian firms as regards machine-tools and

²⁸ Examples of cartelization are more frequent for the sale of such materials as glass or cement. The European Coal and Steel Community also fosters agreements of this nature.

railway materials, and between West German and Swiss enterprises for public works. In addition, private banks, especially in France, act as co-ordinators in encouraging those exports of machinery which depend upon medium or long-term credit. Several groups have also been formed on a national basis, for example, the *Fédération des entreprises de l'industrie des fabrications métalliques* (FABRI-METAL) in Belgium. United States industry appears to be more reluctant to follow these precedents, perhaps because obstacles of a legal nature exist which prevent producers in the same branch of industry from forming associations to eliminate competition. Another form of collaboration remains open to them and is widely used. It consists of team work on the part of *engineering advisers* who, in co-operation with domestic manufacturers supplying the required machinery or materials, prepare studies and plans for large public works and even for co-ordinated programmes of industrial development. Since 1952, the chief industrial countries of Europe have also been competing with the United States in this sphere.

European businessmen display great skill in overcoming such obstacles as the inconvertibility of certain currencies and the exchange regulations which fix export prices at levels higher than those prevailing on international markets. To this end, they are arranging more and more *barter agreements*, both direct and plurilateral, and *private clearing agreements* between free and inconvertible currencies.

Increased investment and technical assistance in establishing new producer enterprises in Latin America are also contributing to enlarge the sphere of competition; such aid and investment is generally accompanied by certain import privileges, and secures long-term preferential treatment for imports of machinery, raw or semi-processed materials, spare parts and replacements.

Another form of competition, at times most successful, is the organization of *trade fairs*, a method exclusively used by European or Japanese interests. During the last few years, such fairs are being held with increasing frequency in the principal cities of Latin America.

*Latin American trade with the USSR and Eastern Europe*²⁹ has increased to such an extent in recent years that it should be regarded as the appearance of a new factor rather than a mere revival of the former somewhat scanty flow of trade. This is confirmed not only by the high figures reached within a few months, but also by the changes which have taken place in the actual nature of the trade with these countries.

The recent progress achieved in this sphere is a consequence of vigorous efforts by the Eastern European countries; since the second half of 1952 they have sought to renew the few agreements which had previously existed with Latin American countries and, above all, to increase their number and broaden their scope. Former treaties had only been signed with Czechoslovakia, Hungary and Poland, but more recently the USSR has also shown a desire to establish its own network of direct agreements with Latin America. An essential feature of these new negotiations, based on the example of the countries of Western Europe, has been the inclusion of liberal credit clauses in such international instruments. The first of these

agreements was signed in July 1952 between Brazil and Czechoslovakia. In August 1953 a trade pact was concluded between Argentina and the USSR, comprising not only reciprocal credit arrangements, but also a clause providing for the delivery of Soviet machinery to the value of 30 million dollars, on deferred payment terms.

The new trend in Soviet policy towards a fuller satisfaction of the domestic demand for consumer goods seems to have been a determining factor in the development of trade with Latin America, which was also influenced by the difficulties of implementing Soviet agricultural programmes. No sooner had the USSR signed its agreement with Argentina than it made full use of the stipulated credit facilities to import fairly substantial tonnages of meat, hides and oleaginous and dairy products. Shortly after concluding a payments agreement with Uruguay, in 1954, the USSR bought meat and wool from this source as well.

The People's Republics of Eastern Europe have also taken advantage of the greater scope of their agreements to increase purchases of these same commodities, as well as of coffee from Brazil and Colombia and rye from Argentina. On their side, the USSR and Poland export fuels, raw materials and certain other commodities such as rails, cement and plate glass to Latin America. Shipments of the same type of machinery previously exported by Hungary and Czechoslovakia, have now begun from the USSR as well, after a recent extensive tour made by an official Argentine trade mission^{30,31} throughout a large area of Europe and Asia including the People's Republic of China.³²

The aggregate value of the reciprocal export and import trade envisaged in the commercial agreements between Latin America and the USSR or Eastern Europe amounted to 265 million dollars at the end of 1953. During 1954 it had risen to an estimated real value of 300 million dollars, thus exceeding the provisions of the agreements themselves early in the year.³³

It cannot be ignored that the greater number of direct commercial agreements between Latin America and the USSR or Eastern Europe weakens the indirect trade passing through Western Europe. Such business had greatly increased during 1953 and 1954. For example, wool from Uruguay was exported to the USSR *via* the United Kingdom and, conversely, Soviet wheat was imported by Brazil in the form of shipments from Finland.

The factors which have led Japan to seek more extensive trade with Latin America are essentially the same that have

²⁹ The outstanding items in the lists of commodities appended to these trade agreements are tractors and other agricultural machinery, machinery and equipment for railways and for the mining and petroleum industries, diesel engines and electric generators, and machinery for the iron and steel industry.

³¹ The trade pacts with the USSR or Eastern Europe are all of a bilateral nature and include clearing agreements. In early 1955, they numbered fourteen with Argentina, Brazil, Paraguay and Uruguay alone, excluding some barter agreements with Chile and Colombia as well as several traditional trade pacts, based on the most-favoured-nation clause, which Czechoslovakia maintains with Latin American countries of the convertible currency area.

³² The first exports to China were mentioned in official Argentine sources on this occasion. They consisted of unspecified tonnages of wheat and quebracho extract.

³³ Despite its size, this figure is well below the new trade targets for 1955. At the beginning of this year they stood at 511 million dollars, excluding 45 millions to cover medium-term payment for future machinery imports.

²⁹ Includes Czechoslovakia, Hungary, Poland, Romania and the German Democratic Republic. Albania and Bulgaria have no trade with Latin America.

influenced the Western European countries, but are much more acute. Peculiar features of the Japanese post-war economy include a considerable disequilibrium in the balance of trade, a much greater dependence on United States off-shore expenditure and, therefore, strong domestic pressure for developing new export markets. Japan's economic structure, like that of the countries of Eastern Europe, has altered considerably during the past fifteen years. Heavy industries and the manufacture of machines now play a much more significant role in production and exports, so that textile goods have been relegated to a position of secondary importance.

To develop its trade with Latin America, Japan has adopted the same means as the Western European countries. They represent more attractive prices (sometimes, although not always, offset by differences in quality), bilateral pacts, barter agreements, reciprocal credits on account and special terms of deferred payment for machinery. In addition, Japan is playing some part in the sphere of industrial investment in the region.

To date, the results obtained by Japan are better than those achieved by the USSR or Eastern Europe. Nevertheless, it should be recalled that Japan began its systematic efforts to penetrate the region's markets some two years earlier and that its trade is not restricted to those Latin American countries where bilateralism prevails. Unlike the USSR and Eastern Europe, Japan has given priority to the countries with freely convertible currencies, in the hope of obtaining favourable dollar balances from such trade.

IV. MOST RECENT TRENDS

So far this chapter has been confined to describing events and trends which began to be evident three or four years ago, a method which was adopted because they are being considered here for the first time. But an analysis of developments during 1954 is now pertinent. Broadly speaking, the general trends already outlined in this chapter continued, but some important events took place which mark new departures.

In the field of export credit, conceived by the industrial countries as an instrument of competition, the most important event was the new policy of the United States, reflected in practice by the new regulations of the Export-Import Bank for its operations. Alone among all the industrial countries, the United States lacked any official or semi-official organization for insuring capital invested in exports; nor was there any institution empowered to grant credits, apart from the Export-Import Bank, whose activities were limited to loans guaranteed by governments abroad in connexion with economic development projects, which required the Bank's approval in every case.

Some private organizations covered export risks, but, since they did not enjoy official backing, they were obliged to charge premiums that were too high to provide an effective defence of foreign markets. As a result of the growing competition from European and Japanese exporters and of the success they obtained through credit incentives offered, with government aid,³⁴ to their cus-

tomers, industrial and commercial circles in the United States, after a sustained campaign, succeeded in having the Eximbank's regulations amended. The modifications, in contrast to a previous change, considerably broaden the activities of this Bank. Under its new regulations, the Export-Import Bank may continue to assist in the execution of economic development projects abroad, as it did until 1953. But, in addition, it may guarantee exports financed by private banks up to 60 per cent of their value. The guarantee covers the entire risk assumed by banks in the first instance, while half of the remaining 40 per cent will be covered by foreign purchasers, in advance, and the other half by the exporters themselves. To encourage the use of the new system, the Eximbank is granting aggregate credit lines for a given sum to regular exports, which is proportionate to the volume of business of each individual firm. Such credits may be used in rotating form. In this way the United States has established a method of export credit and insurance very similar to the systems which have existed for many years in the European industrial countries, Canada and Japan. The new type of operation involves no direct commitment of State funds, because it may only be used when foreign purchasers fall into arrears. The experience of other countries has shown that this risk is very slight in trade with Latin America, except for arrears of remittances caused by a temporary shortage of foreign exchange. The United States would thus appear to have found a positive formula for encouraging a greater participation of private capital in foreign trade, through basic co-operation between private banks and State.

It is interesting to note that in the United States several objections were raised to the new system. Fears were even voiced that a considerable rise in exports, fostered by the broader credit facilities, might ultimately affect the long-term payments capacity of the importing countries. To these doubts the Export-Import Bank replied that its purpose was not so much to raise the export volume as to assist exporters in maintaining their present positions by giving them facilities comparable to those available to their Japanese and European competitors.³⁵

The first new credit lines were opened in November 1954. It is too early, therefore, to comment upon the results of this new policy in the United States.³⁶

It is not only official policy which has changed; trade, industrial and financial circles in the United States are now paying much more serious attention to foreign credit problems. In 1954, a number of steps were taken to raise money for credits designed to promote exports. One such step was taken by a group of banks; others originated with industrial combines. The whole system, however, is still at the stage of preliminary study. The re-appearance in 1954 of an unfavourable Latin American balance of trade with its northern neighbour, underlines the importance of developing a more liberal credit policy in the United States.

Official European policy, too, was modified during 1954, so far as credits and all classes of export incentives were concerned. Without entering into detail, two tendencies,

³⁴ See *Business Week*, 9 October 1954, p. 160.

³⁶ Restrictions in force since 1953 caused the total of new loans authorized for exports to Latin America (excluding the consolidated loan to Brazil) to be reduced to 17 million dollars in that year. It compares with a total of 153 millions in 1952, but rose again in 1954 to 155 million dollars.

³⁴ Cf. *Interim Report of the Senate Committee on Banking and Currency*, Washington, D.C., 1954, *passim*.

to some extent mutually contradictory, can be distinguished in measures taken by a number of European governments. On the one hand, they are attempting to expand their assistance to exporters, especially to medium and small enterprises. On the other, they are endeavouring to reduce State financial commitments. To achieve the latter end, attempts similar to those of the Eximbank are being made to secure greater participation by banks and other private financial bodies in the direct provision of export credits. The proportion of official coverage granted by government agencies is also being reduced, and certain European countries are utilizing the renewal of bilateral agreements to limit reciprocal credits on account. This restrictive policy, however, does not extend to medium-term credits especially designed to foster machinery exports.

The new policy in Western Europe appears to arise, on the one hand, from a very general tendency towards gradual revival of private enterprise in trade and, on the other, to some doubts on the part of central banks on the exaggerated total of foreign credits and the consequent inflationary pressure. In European industrial and trade circles, opinion generally inclines towards the present system of aiding exports. But dissentient voices are not lacking, especially in the United Kingdom. During the concluding months of 1953, delegates of the Federation of British Industries obtained a unanimous vote of the Council of European Industrial Federations, meeting at Paris, for a resolution requesting governments to call a truce in "the race for ever bigger export incentives, which are in effect concealed subsidies". This tendency was also apparent in the agreement of mid-1954, between the West German Minister for Economic Affairs and the British Chancellor of the Exchequer, on reciprocal and progressive elimination of measures to promote exports.³⁷ It was further reflected in the decision taken by the Organization for European Economic Co-operation, on the initiative of the United Kingdom Government, to study the most suitable means of putting an end, by common consent, to the continuous growth of the policy of granting direct and indirect export subsidies, including, apart from credit in its several forms, a wide variety of fiscal, social and administrative measures.

Trade policy in Western Europe also indicated opposing trends in 1954. Firstly, new bilateral clearing agreements were signed, in which the value of the proposed trade was in many cases increased. Secondly, some bilateral agreements were cancelled and substituted by new agreements under the terms of which payments are made, or will be made, in freely convertible currencies.

It is curious to note that Western Germany, the very country which had made the most extensive use of bilateral clearing agreements with Latin America and had derived the greatest advantages from his policy, is now adopting a different attitude. In less than a year, the Federal Republic has reduced the aggregate reciprocal credit envisaged in the trade pact with Argentina and has cancelled bilateral agreements with Colombia and Ecuador, to return to a system of payment in freely convertible currencies. Negotiations were also opened with Chile to replace the dollar on account by the Deutsche mark, which under certain conditions could be used within the area of the European

Payments Union.³⁸ Similarly, mention should be made of the agreement signed in July 1954 by Uruguay and the USSR, whereby payments are assessed in sterling and Uruguay might utilize any favourable balance in any country of the sterling area.

In former years, the more or less tolerated practice of triangular operations was introduced in some Latin American countries with non-convertible currencies. The aim was to obtain United States goods and to pay for them in soft currencies, or, conversely, to use the credit balances of European countries by purchasing Latin American commodities for sale against convertible currencies on the world market. Naturally such operations were only possible in return for a premium, at times very high, at the expense of creditors. In 1954, Uruguay secured the liberalization of such transactions by channelling them towards a new, if restricted, multilateralism. The Netherlands and the United Kingdom agreed that Uruguayan importers might use guilders or sterling to pay for merchandise of United States origin, without requiring that it should first be held in bond at Dutch or British ports. In the first case the operations must be approved by the Netherlands Bank; in the second no prior authorization is required, provided that the sterling so used is available from transferable accounts. Other European countries, France and Sweden for example, have so far refused to authorize this type of business. But, in December 1954, the National Bank of Belgium, following Western Germany's lead, authorized importers in Uruguay to pay for Belgian goods in any of the currencies of the European Payments Union.

A movement is clearly apparent towards a return, if not to multilateral free trade in its traditional form, at any rate to a limited liberalization of trade. It is not yet certain whether this movement will become widespread, even extending to the dollar area, or whether it will develop into convertibility limited to the European Payments Union, but in some aspects capable of expansion to a broader field. In either case, the trend is one which will sharpen competition on the region's markets.

V. EFFECTS OF FOREIGN COMPETITION UPON LATIN AMERICA'S ECONOMY

Some consideration should be given here to the principal repercussions on Latin America of the increasing competition and the form it has assumed.

The progressive recovery of their Latin American trade by the countries of Western and Eastern Europe and by Japan must clearly broaden *the range and scope of the markets* very considerably. As a result, the dependence of Latin America upon its principal trade sources and destinations is being reduced. Secondly, the curtailment of certain exports to traditional markets is offset by the emergence or re-appearance of additional markets, and price levels therefore remain more stable. The new markets in Europe and elsewhere were of great value because they allowed surplus stocks to be sold. This last factor has had a substantial influence on the creation, in countries such as Argentina and Uruguay, of a favourable climate for resuming normal trade relations with the USSR and Eastern

³⁷ This information, which apparently received very limited distribution was published on 22 October 1954 in the official Information Bulletin of the Bonn Government.

³⁸ The trade agreement between Argentina and Belgium signed at the beginning of 1955 authorizes Argentina to use some of the Belgian francs accumulated as assets in the bilateral account to pay for goods imported from other members of the European Payments Union.

Europe. In Argentina, Brazil and Uruguay, there is much confidence that the export volume will be increased through the geographic expansion of trade. As regards imports, the greater number of sources and the consequent foreign competition reduce the region's dependence upon its principal suppliers and enable a more satisfactory choice of imported goods to be made. Such a range of selection not only influences their quality and price but also their suitability for consumer tastes and for the special requirements of agriculture and industry.

In relation to *lower import prices*, the advantages accruing from competition have already been outlined. But at this stage an important element must be noted. European and United States statistics appear to deny the existence of lower prices, by showing that in all the exporter countries there are very few fluctuations in the price indices for machinery exports. The lower prices obtained by Latin American importers are not caused, therefore, by price cutting in any individual exporting country, but arise, in fact, from the presence of new competitors in every branch of production, which provides the opportunity to choose new suppliers under more favourable conditions. This hypothesis is supported by the shift from the United States and the United Kingdom to suppliers in continental Europe and Japan, who have only recently recovered their capacity to export. In any event, the developments in price competition for machinery are too numerous and mutually confirmatory to leave any doubt as to the reality, and are additionally corroborated by statistics for other exports such as cement and steel. Apart from its favourable influence on the terms of trade, the reduction in the cost of imported capital goods — where the price decline is most apparent — is particularly important as a means for the progress of economic development.

From one angle, the diversification of the import sources may prove to be disadvantageous when, owing to the scarcity of a specific foreign currency, the region's industry must complete or renew machinery with units that differ from those normally employed. The problems created by this situation in organizing production and in subsequently acquiring replacements are sometimes very serious.

Despite certain inconveniences, substantially greater credit incentives, which are one of the direct results of foreign competition, have decided advantages for the recipient countries in Latin America. Argentina, faced by an emergency, was able to fall back upon the system of bilateral trade and payments agreements and the use of the corresponding credits, so that the crisis could be met without having fresh resort to medium or long-term loans. To correct at a later stage the imbalance which had arisen in most of its bilateral accounts, Argentina was obliged to continue until December 1953 the severe restrictions which had previously been imposed upon imports, but this readjustment policy was carried out in orderly fashion without serious detriment to the national economy.

The practice of granting reciprocal credits has both mitigated the effects of temporary fluctuations in the capacity to import and led the European countries to foster imports from Latin America in order to maintain their own export level without accumulating excessively high favourable balances. Western Germany provides the most typical example because, as far back as 1953, the Federal Republic decided to reduce customs duties on coffee by 70 per cent in order to increase imports from Brazil and Colombia.

Consequently, despite higher prices, Western Germany's imports of Brazilian coffee rose from 297 thousand sacks in the first eight months of 1953 to 371 thousand during the same period in 1954. The proportional increase was even greater in the case of Colombian coffee.

The recent trend towards granting more *medium-term credits* to encourage machinery imports is of value for the development of agricultural and industrial production in Latin America and for the improvement of public utility services such as transport and energy. Credits for this purpose in the existing trade agreements with Latin America amount to more than 400 million dollars, of which only a fraction has been utilized to date because of the time involved in preliminary surveys for economic development programmes.

Competition for import markets has also affected the volume of private commercial credits. In 1953, official publications of several governments pointed out that, as a result of competitive methods, it was no longer possible to require payment for exports on embarkation. Former practices have thus been readopted, longer terms of from 60 to 120 days being granted. This change of procedure, which has taken place during the last two years, is of great importance. Its effect is more marked in the convertible currency area of Latin America, where credit resources provided by clearing agreements do not prevail. Clearly, no accurate information exists as to the present volume of such credits; nevertheless, some indication of their approximate magnitude can be given. Including only the countries of the convertible currency area and excluding imports of foodstuffs, raw materials and fuels so that imports of manufactured goods and machinery only are involved, the annual value of imports, ever increasing as commercial practice evolves in its favour, may be roughly estimated at 2 thousand million dollars. If on the average the date of actual payment is postponed for three months, this further delay is the equivalent of a rotating credit of 500 million dollars.

A broad use of credit by importing countries in Latin America leads to certain problems. At present, one of the principal unknown factors is how far private enterprise will be able to provide a steady and satisfactory substitute for direct and indirect government action on the volume, deferred terms and costs of imports. If the distribution of long and short-term trade credits remains entirely, or to a large extent in the hands of the private banks, it is to be feared that aggregate available facilities to foster exports may fluctuate in inverse ratio to economic needs; they might expand in times of prosperity and disappear altogether when resources are most urgently required. The caution displayed by private banks in their transactions, however reasonable, involves the risk that their intervention in the sphere of credit may sharpen rather than reduce the instability of trade. When foreign exchange earnings are plentiful, it would be wise to use credit sparingly to avoid exaggerated future liabilities. Conversely, it is precisely during a contraction of economic activity that greater credit facilities should be available, in the interests both of importers in Latin America and of industry in the exporting countries.

Nor is the normal use of credit entirely free from difficulty. Events in Peru at the close of 1953 provide an example of the imbalance which may arise from a relative superfluity of credit. Under pressure from foreign ex-

porters, who offered liberal credit facilities in return for greater purchases, the Peruvian market was flooded with too many consumer goods. The consequences were serious, because they caused a temporary disequilibrium in the balance of payments, a fall in the rate of exchange, the accumulation of substantial arrears and the negotiation of a foreign loan of 30 million dollars, which, however, was not ultimately utilized.

Credit may even become burdensome to the borrower, not on account of interest rates, which for the time being have remained normal and even low as regards the credit envisaged in bilateral agreements, but because of the *price surcharge* sometimes applied to goods sold under the stimulus of more convenient terms.

In this connexion it is interesting to note the attitude of various commercial and industrial combines in the United States at the time when the powers of the Export-Import Bank were restricted. They affirmed that if the provision of official credits for development purposes were left solely to the International Bank for Reconstruction and Development, United States industry would be at a competitive disadvantage to Western Europe. Outstanding among the examples they gave is the case of the river Lempa hydroelectric scheme, in El Salvador, partly financed by a loan from the Bank. On account of lower prices, most of the cement and steel, as well as the three generators, were imported from Europe. From another angle, the case of a woodpulp mill in Brazil is also noteworthy; it was established with private United States capital, yet its equipment was bought in France and the United Kingdom. From these facts it would appear that importers should carefully examine the apparent advantages of credit in the light of its effect on prices, although it may not always be easy to do so, because in many cases technical factors also play a part.

The greatest danger implicit in the use of credit facilities is that of neglecting the due *balance of the obligations con-*

tracted for a given term. This is particularly true of deferred payments and long-term development credits. Lack of caution in their use may lead to the future accumulation of such large obligations that a single unfavourable factor, whether internal or external, may suffice to convert them into a heavy mortgage on foreign exchange earnings and to cause difficulties in importing highly essential commodities.

This same motive for anxiety has led Chile's *Consejo de Comercio Exterior* to plan a study of trade prospects in relation to economic development projects. Over-all research will be carried out on the future annual expenditure involved, taking into account not only direct amortization but also imports of replacements, fuels and raw materials, and, further, the foreign exchange position which will arise from expanded domestic production.

From the aspect of Latin America's economic development, the most important effects of foreign competition take the form of *heavier investments* in industry. In their eagerness to capture markets and with the support of the legislation favouring new enterprises that exist in the majority of the Latin American countries, a growing number of industrialists from Western Europe, Japan and the United States are helping to establish new plants and the production of goods which had hitherto been imported. In this way production equipment is usually imported without foreign exchange outlay and as a capital inflow. The direct collaboration of foreign industrialists in economic development further implies a continuous dissemination of technical knowledge, which may in the long run be of greater value than any other contribution to the economic advancement of the region. The example of the production of special steels in Brazil, quoted above, shows that with the incentive of competition it is possible to overcome artificial obstacles, created by vested interests, to the development of new production branches of a highly technical nature.

Chapter IV

THE MAIN BRANCHES OF PRODUCTION

I. AGRICULTURE

A. GENERAL ASPECTS AND PROBLEMS

1. *Quantum of production*

During the 1953/54 farm year, the quantum of Latin America's agricultural production rose by 2.5 per cent above the preceding year and thus at last almost equalled the growth rate of the population. Per capita production, however, still remained below pre-war levels. (See table 38.)

Argentina's production is an outstanding element in this situation, since, according to the year, it accounts for 25 to 30 per cent of the aggregate. Excluding crops in Argentina which have fluctuated sharply within a downward trend, the *per capita* agricultural production of the region shows a more uniform development over recent years and is also somewhat higher than the increase in demographic growth. (See chart XV.)

In contrast to the rest of the world, however, Latin America's agricultural production does not appear to have

declined, at least during the last five years. Latin America's contribution of sugar, wool, and particularly coffee, has decreased. The share of rice and cotton has remained unchanged, while that of wheat and cacao has risen. (See table 39.) On the whole, Latin America's position did not deteriorate since the increases and decreases were distributed between products with a steady market and those which show surpluses. In fact, both Latin American and world production of these commodities have followed parallel trends. (See chart XVI.)

2. *Production trends*

It is almost repetitive to recall that, after the Second World War, Latin America's agricultural production tended to give preference to products for the domestic market, while the absolute value of export commodities has remained more or less constant and there has been a

Chart XV
LATIN AMERICA: QUANTUM OF AGRICULTURAL PRODUCTION
Thousand million dollars at 1948 prices
(Semi-logarithmic scale)

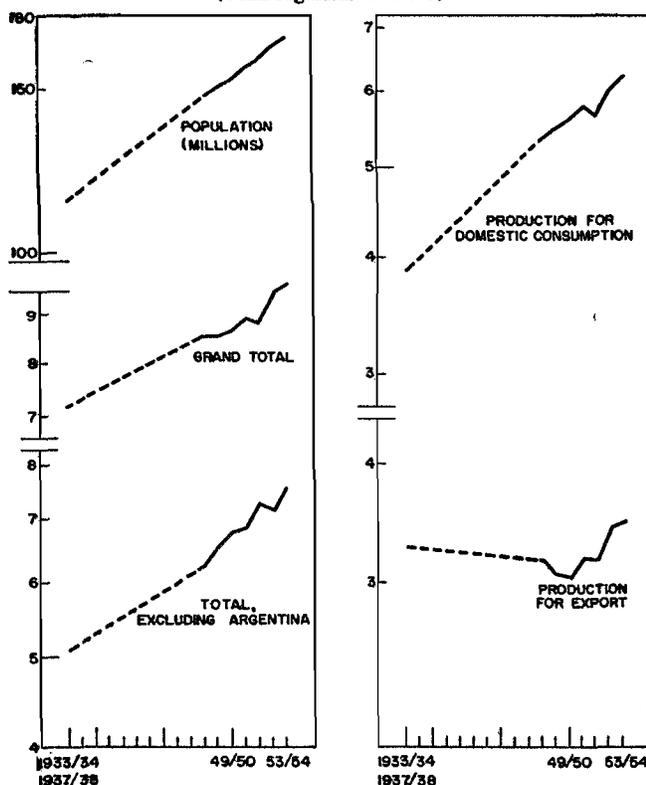


Chart XVI
LATIN AMERICA: COMPARISON OF THE PRODUCTION OF PRINCIPAL CROPS WITH WORLD PRODUCTION, 1949/50-1953/54
Millions of tons
(Semi-logarithmic scale)

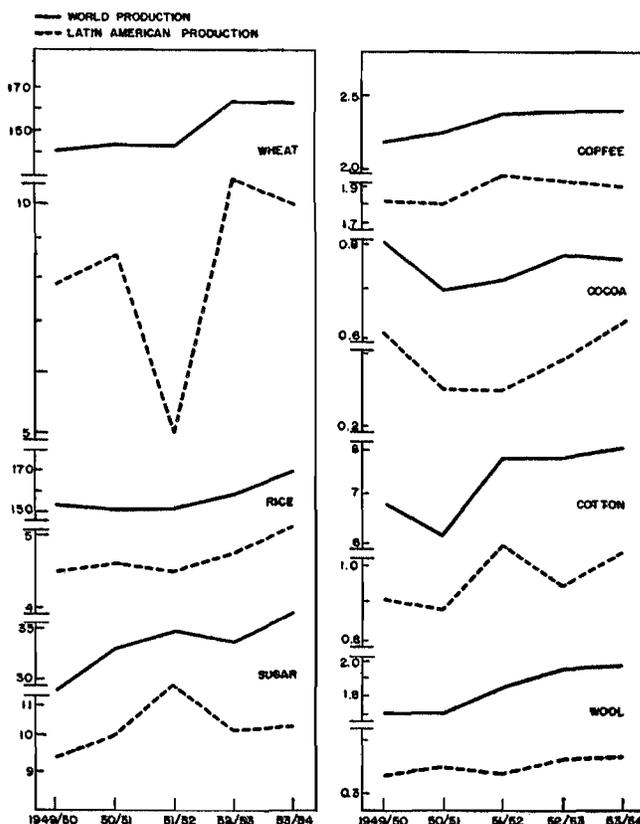


Table 38. Latin America: Indices of the quantum of agricultural production
(1949/50=100)

	1933/34- 1937/38 ^a	1950/51	1951/52	1952/53	1953/54 ^b
TOTAL AGRICULTURAL PRODUCTION	82	103	102	110	113
Per capita agricultural production.....	109	101	97	102	103
Total foodstuffs.....	78	105	100	111	113
Per capita foodstuffs.....	104	103	95	103	103
Wheat.....	111	109	65	139	128
Maize.....	144	119	111	123	144
Rice.....	42	103	101	107	115
Other cereals ^c	100	146	83	233	168
Roots and tubers ^d	64	106	103	112	121
Pulses ^e	73	100	96	110	125
Edible oil-seeds ^f	48	116	114	100	105
Raw and refined sugar.....	56	107	123	108	111
Cacao.....	80	85	85	92	103
Fruit ^g	69	100	107	109	118
Vegetables ^h	26	100	105	118	125
Meat ⁱ	77	99	98	96	90
Wine.....	67	93	82	104	103
Total stimulants.....	107	101	107	108	106
Per capita stimulants.....	143	99	102	100	96
Coffee.....	115	99	108	107	105
Other stimulants ^j	68	109	101	111	110
Total industrial oil-seeds ^k	205	92	70	96	78
Per capita oil-seeds.....	273	90	67	89	71
Total fibres.....	71	98	112	104	121
Per capita fibres.....	95	96	107	96	110
Cotton.....	70	96	117	104	128
Wool.....	84	103	101	106	106
Other fibres ^l	54	97	102	96	109

Source: Economic Commission for Latin America, based on official statistics from the countries concerned.

^a Figures for 1933/34-1937/38 are pre-war averages.

^b Subject to revision.

^c Oats, barley and rye.

^d Potatoes, manioc and sweet potatoes.

^e Beans, chickpeas, lima beans, lentils and peas.

^f Cotton-seed, sunflower-seed, peanuts and sesame.

^g Bananas and pineapples.

^h Tomatoes, fresh and dried chile peppers.

ⁱ Beef, mutton and pork.

^j Tobacco, maté and tea.

^k Linseed, castor beans and tung.

^l Sisal and abaca.

decline in relative terms. In 1953/54 this trend was again manifest, because production for the domestic market increased by 3.1 per cent while the volume of export crops only rose about 1.5 per cent. Nevertheless, this difference has been more pronounced in other years. (See table 40.)

Table 39. Latin America: Share of various commodities in world production, 1950-54
(Percentages of total)

	1949/50	1950/51	1951/52	1952/53	1953/54 ^a
Wheat ^b	5.6	6.0	3.5	6.6	6.1
Rice ^b	2.9	3.0	2.9	3.0	3.0
Sugar ^c	32.4	31.4	33.3	30.2	28.1
Coffee.....	83.0	80.6	82.7	81.0	79.1
Cacao.....	33.0	32.1	31.2	31.5	35.8
Cotton.....	13.4	14.3	13.7	12.2	14.4
Wool.....	18.3	18.8	17.1	16.9	16.9

Sources: For world production: Food and Agriculture Organization; for Latin American production: the figures used to calculate the production index in table.

^a Provisional figures.

^b Excluding the USSR.

^c Including cane and beet sugar.

Table 40. Latin America: Composition of agricultural production according to use
(1933/34-1937/38=100)

	1949/50	1950/51	1951/52	1952/53	1953/54
Total production					
For export.....	93.5	97.4	97.3	105.4	107.0
For domestic consumption	145.8	150.1	146.9	157.9	162.7
Per capita production					
For export.....	70.0	71.2	69.4	73.3	72.7
For domestic consumption	109.1	109.7	104.9	109.8	110.6

Source: Economic Commission for Latin America, based on official statistics.

The results of this disparity become more marked if long-term trends are analysed. Production for domestic consumption, which only accounted for about one-half of the pre-war aggregate, since that time has monopolized most of the increases in agricultural production and, in recent years, has absorbed almost two-thirds of the total.

The causes of this phenomenon have already been emphasized in previous editions of the *Economic Survey for Latin America*. Among these causes, the main factor has been the policy adopted by many governments to improve

the supply of scarce agricultural commodities by developing domestic production either to replace imports or to meet growing consumer requirements. In most cases, these efforts have proved successful. The significance of the examples in table 41 illustrate the results obtained, since they emphasize that production has expanded more rapidly in countries with a deficit than in those exporting agricultural products. In some cases, such as that of sugar, between 1950 and 1954, production of the former group of countries rose by 42 per cent against a 3.5 per cent decline in exporting countries.

Table 41. Latin America: Variations in the production of some important agricultural commodities

(Percentage variation—1954 to 1950)

	Countries which are habitual exporters	Countries which are importers or occasional exporters	Total
Wheat	20.5 ^a	42.2	28.0
Rice	5.4 ^b	50.3	14.5
Sugar	-3.5 ^c	41.9	10.5
Cotton	25.6 ^d	149.3	27.5

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina.

^b Brazil, Dominican Republic, Ecuador and Mexico.

^c Cuba, Dominican Republic and Peru.

^d Brazil, Mexico, Nicaragua and Peru.

Although it can be explained, an obvious contradiction exists in the development of Latin America's agriculture as a whole. While some countries, such as the sugar producers, must restrict production because of difficulties in selling their exportable surpluses, others can relax imports through the progress of domestic production. Moreover, some countries have even advanced from importing to exporting certain commodities, rice and cotton for example.

After the Korean conflict, which caused a substantial increase in the export prices of Latin American raw materials, the fluctuations in world demand and prices—mitigated to a large extent by the application of guarantee prices, subsidies and preferential exchange rates—have acted as disturbing elements. In many instances not only did domestic prices for several commodities remain above the world price level as a result of a rise in production costs, but this situation has even been aggravated in recent times by the accumulation of surpluses—particularly outside the region—of various important commodities, such as wheat, cotton, sugar, tobacco and wool.

Another circumstance explaining the different behaviour of the two sectors of agricultural production is the loss of certain traditional markets, which has obliged a sharp reduction to be made in some crops. The most typical example is that of linseed, for which the crisis began during the war years. Prices dropped owing to the difficulties of selling linseed during the war and to the competition of other producer regions. The United States was able to meet its own requirements, while Latin America was forced to use much of the land previously sown with linseed for more profitable crops. Over-all production of industrial oil-seeds in 1953/54 amounted to only one-third of the

pre-war level, but the situation improved with the advent of new purchasers of Argentine linseed.

For other products, the export decline resulted from the pressure exerted by domestic demand upon a stationary level of production. The most obvious case is that of meat. During the thirties, the region was among the principal meat exporters of the world, but, because livestock production grew less rapidly than the population, it was necessary to devote a larger share of the available meat to domestic consumption, at the expense of exports. This situation affects Argentina, Brazil and Uruguay.

Unfortunately, the decline in several of the main traditional exports of Latin America's agriculture has not been offset—except in isolated cases—by a corresponding increase in other agricultural commodities which have or might find good foreign markets. Fruit and vegetable exports have begun during the last fifteen years, but a factor limiting expansion is the need for refrigerated transport and its high cost.

Broadly speaking, the external demand for the region's agricultural commodities has not been very elastic. In contrast, given the low consumption levels in most countries, the domestic demand has closely followed the rise in the income level, while the growing requirements of urbanization and industrialization have also caused it to expand.

3. Agricultural trade balance

There is a further contradiction in the recent evolution of Latin America's agriculture. The region as a whole is a net exporter of foodstuffs. But the situation created by the pressure of domestic demand has given rise both to greater food imports and to a decline of exports.

Data on the ten Latin American countries, which account for 80 per cent of the aggregate, show that food exports declined in 1954 in relation to the preceding year and reached a point far below pre-war levels. Excluding Argentina, Cuba and Mexico, where food imports have tended to decline, and Uruguay, where they have remained stationary, the Latin American countries have been obliged to resort to imports in order to bridge the growing gap between domestic supply and demand, which local agriculture is unable to meet. An absolute deficit has not yet been reached, but the figures show a greater dependence on food imports, (see table 42) which contrasts sharply with the trend towards self-sufficiency mentioned earlier.

Table 42. Latin America: Balance of foreign trade in foodstuffs for ten countries^a
(Millions of dollars)^b

Years	Exports	Imports	Balance
1950	2,350	897	1,453
1951	2,370	955	1,415
1952	2,093	944	1,149
1953	2,592	1,002	1,590
1954	2,293	992 ^c	1,301 ^c

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Peru, Uruguay and Venezuela.

^b At 1950 prices.

^c Estimate.

4. *Limitations and possibilities*

Governments have become concerned and have sought to correct this situation, which is indeed paradoxical for a region where more than half the actively employed population works in agriculture. Corrective measures have mainly consisted of guarantee prices, technical assistance, credit facilities and government investments in irrigation and transport. Despite the success achieved in this field, much still remains to be done.

In reality, the main limiting factor is the lack of capital and techniques, because neither land nor labour constitute such a problem in Latin America. Census data and available estimates on land use in several Latin American countries indicate that there is sufficient arable land in the region—already under cultivation or which might be farmed without any substantial capital outlay—to meet current and future demand. The problem is a better utilization of such land.¹

Although much is lacking in statistics on land use in Latin America, they do give some idea of the availability of arable land and of the small use made of it. (See table 43.)

It may be seen that organized agricultural exploitation affects only 38 per cent of an estimated 1,380 million hectares of productive land. Furthermore, only 17 per cent of the land actually in use is devoted to crops or artificial pastures; the remainder comprises low-yielding natural grassland. If these percentages are compared with those of other regions, including Africa, the land resources of Latin America appear to be very inadequately utilized.

As regards manpower, there is a characteristic abundance of the agricultural labour force, but with a very low productivity ratio. Far from lacking labour, agriculture constitutes, in general,² a reserve from which other activities, mainly manufacturing and services, draw their manpower.

Land lying fallow, or inadequately used, together with the low labour productivity ratio, may be considered as the basic problems which cause the stagnation of Latin America's agriculture.

Table 43. Latin America: Land utilization*

	Millions of hectares	Percentage
Total area.....	2,000	100.0
Productive area.....	1,377	68.9
Unproductive area.....	623	31.1
Productive area.....	1,377	100.0
Agriculture and cattle-raising.....	530	38.5
Woods and forests.....	847	61.5
Agricultural and cattle-raising area.....	530	100.0
Under cultivation.....	90	17.0
Natural pastures.....	440	83.0
Cultivated area.....	90	100.0
Plantations and crops.....	69	76.7
Stubble and fallow lands.....	5	5.6
Artificial pastures.....	16	17.7

Source: Economic Commission for Latin America, based on official statistics and estimates.

* The figures are approximate and largely estimated.

¹ A study being prepared by the secretariat of the Commission deals with the possibilities of expanding Latin American exports. The figures given on use of farm land are taken from this source.

² Argentina and Uruguay excepted.

B. ANALYSIS BY MAIN PRODUCTS

1. *Wheat*

In 1953/54, Latin America's wheat production was slightly over 10 million tons, in comparison with 10.9 millions for the preceding year. Nevertheless, in relation to the averages for the five-year period just before the war and for 1948/49—1952/53, production was 15.5 and 24.0 per cent greater respectively. (See table 44.)

Table 44. Latin America: Wheat production
(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^b	Production of those countries which are occasional exporters ^b
1947/48.....	9,183	6,500	2,683
1948/49.....	8,089	5,200	2,889
1949/50.....	7,834	5,144	2,690
1950/51.....	8,559	5,796	2,763
1951/52.....	5,049	2,100	2,949
1952/53.....	10,889	7,634	3,255
1953/54 ^c	10,026	6,200	3,826

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina.

^b Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Uruguay and Venezuela.

^c Subject to revision.

The lower production in relation to 1952/53 was mainly due to the decline in Argentina's crops.

While world production declined only slightly,³ Latin America's contribution has dropped from 6.6 to 6.1 per cent during the last two farm years. The region's export position, however, improved; while the quantum of world exports declined, Latin America's total reached higher levels.

(a) *Production for domestic consumption*

In 1953/54, production of countries which grow wheat mainly for the domestic market⁴ amounted to 3.8 million tons, that is 17.5 per cent more than in the preceding year and slightly more than double the average pre-war level. *Per capita* production rose from 18 kilogrammes in 1934-38 to 25 kilogrammes in 1953/54.

This has been a result of the development and minimum guarantee price policies followed by governments with the purpose of reducing wheat imports. Despite considerable progress, expectations have not been fulfilled in several countries—particularly those where the climate and soils are not really suitable for wheat.

In other countries—particularly Mexico and Uruguay—all forecasts were exceeded and Mexico has become practically self-sufficient. The guarantee price in Uruguay gave wheat such an advantage over other crops that production practically doubled, expanding from 426,000 tons in 1952/53 to 819,000 in 1953/54. A surplus of 360,000 tons

³ Excluding the USSR during 1952/53 it stood at 164.2 million tons and at 163.9 millions in 1953/54.

⁴ Excluding only Argentina.

was accumulated. Production failed to rise in only three countries—Chile, Guatemala and Venezuela.

Despite the substantial expansion of wheat production in importing countries, in 1953 not more than 52 per cent of the domestic requirements could be met. Some 3.3 million tons of wheat were harvested, against an apparent consumption of 6.3 millions. To cover the difference between production and the ever-increasing consumption, imports

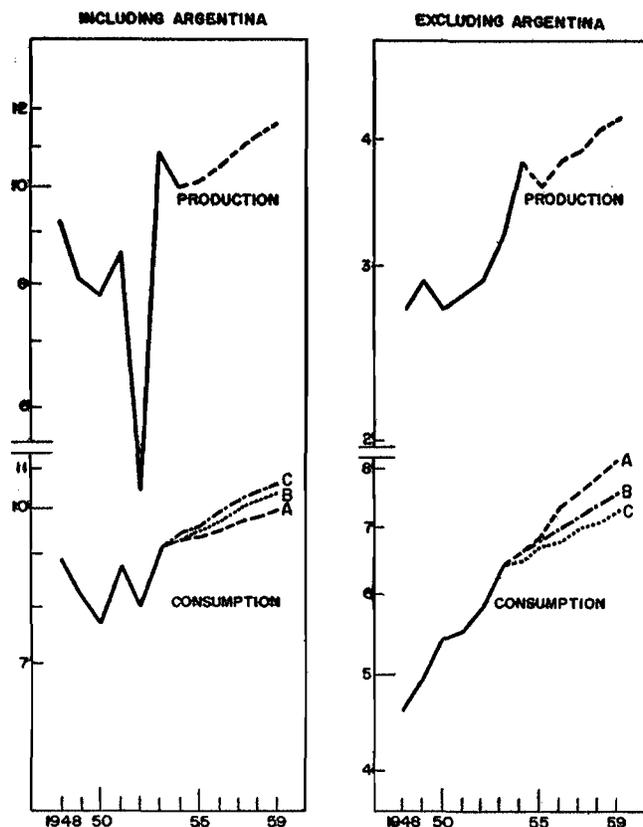
Table 45. Latin America:^a Production, imports, exports and apparent total and *per capita* consumption of wheat
(Thousands of tons)

	1934-38	1950	1952	1953
Production.....	1,876	2,690	2,949	3,255
Imports.....	1,509	2,716	3,219	3,118
Exports.....	96	8	213	73
Apparent total consumption.....	3,289	5,398	5,955	6,300
Apparent <i>per capita</i> consumption (kgs)	32.2	39.3	41.4	42.7

Source: Economic Commission for Latin America, based on official statistics and foreign trade yearbooks.

^a Excluding Argentina.

Chart XVII
LATIN AMERICA: PROJECTION OF THE PRODUCTION AND CONSUMPTION OF WHEAT
Millions of tons
(Semi-logarithmic scale)



(A) Assuming a rate of increase in consumption similar to that of recent years.

(B) Assuming an increase in consumption identical with the demographic growth rate.

(C) Assuming an annual increase in population and income of 1.5 per cent and an income-elasticity of demand of 0.5 per cent, for all countries except Argentina.

had to be raised progressively. During the five pre-war years, imports had averaged only 1.5 million tons; in 1946-51 they already stood at 2.3 millions, while in 1953 they rose to 3.1 million tons. (See table 45.)

Per capita wheat consumption in Latin America tends to expand for two reasons. Firstly, with the exception of Argentina, Chile and Uruguay the average consumption level is relatively low.⁵ Secondly, low income levels prevail so that any rise in income causes a shift from maize and other cheaper cereals to wheat and rice consumption.

The case of Brazil is illuminating. The income elasticity of demand for wheat stood at 0.6 from 1938 to 1953, while *per capita* consumption rose from 27.8 to 43.6 kilogrammes. The rapid demographic growth characteristic of this country explains the rise of wheat consumption during the same period from 1.1 to 2.4 million tons. Although production expanded from 101,000 to 772,000 tons, imports increased from 1.0 to 1.7 million tons.

To evaluate future Latin American wheat requirements, several projections have been made for 1959 according to the three following hypotheses: (a) Latin America—excluding Argentina—will maintain the same rate of production and consumption as in recent years; (b) the region's consumption will increase only at the same rate as the population growth; and (c) that population and income will rise at an annual rate of 1.5 per cent with an income elasticity of demand of 0.5 per cent. The results of these three hypotheses are analysed below and are shown in table 46. (See also chart XVII.)

According to the first hypothesis, always excluding Argentina, production in 1959 would stand at 4.2 million tons while consumption would be 8.2 million tons. The deficit, therefore, would increase from 3.1 to 4.0 million tons, that is slightly less than one million tons above the present level.

Under the terms of the second hypothesis, which is in fact hardly feasible, the situation would improve very little in relation to present deficits, since imports would not decrease and the deficit would consequently subsist in the same proportion.

The third hypothesis, which is more realistic, postulates that the problem of wheat supplies would become more serious, since regional consumption, less that of Argentina, would rise to 7.6 million tons.

It is improbable that the intensive rate of increase of Latin America's production, always excluding Argentina, can be maintained at the same level it has reached today through a series of circumstances which may disappear or of stimuli that may become weaker. Argentina, therefore, would remain as the possible source of covering this growing Latin American deficit.

Argentina's wheat harvest, projected up to 1959 and based on the targets of the Second Five-Year Plan, would, in addition to the production of the other Latin-American countries, provide a total of 11 million tons. This approximately corresponds to the aggregate projected consumption of the region in 1959, when the most realistic hypothesis is adopted, that is, when the consumption level is determined by a growth of population, of income and of income-elasticity similar to the present rate of development.

⁵ About 40 kilogrammes *per capita* against 203 kilogrammes in Argentina, 141 in Chile and 202 in Uruguay.

Table 46. Latin America: Projection of the production and consumption of wheat

(Millions of tons)

Years	Production		Apparent consumption		Increase in consumption, taking into account demographic growth only		Increase in consumption, taking into account demographic growth, an annual rise in income of 1.5 per cent and an income-elasticity of demand of 0.5 per cent	
	(A)	(B)	(A)	(B)	(A)	(B)	(A)*	(B)
1948.....	9.2	2.7	8.9	4.6	—	—	—	—
1949.....	8.1	2.9	8.2	4.9	—	—	—	—
1950.....	7.8	2.7	7.7 ^b	5.4	—	—	—	—
1951.....	8.6	2.8	8.8	5.5	—	—	—	—
1952.....	5.0	2.9	8.0 ^b	5.9	—	—	—	—
1953.....	10.9	3.2	9.1	6.3	9.1	6.3	9.1	6.3
1954.....	10.0	3.8	9.3	6.6	9.3	6.5	9.4	6.6
1955.....	10.1 [*]	3.6	9.4	6.9	9.5	6.7	9.6	6.8
1956.....	10.5 [*]	3.8	9.5	7.3	9.7	6.8	9.9	7.0
1957.....	10.9 [*]	3.9	9.7	7.6	10.0	7.0	10.2	7.2
1958.....	11.3 [*]	4.1	9.8	7.9	10.2	7.1	10.5	7.4
1959.....	11.6 [*]	4.2	10.0	8.2	10.4	7.3	10.7	7.6

Source: Economic Commission for Latin America, based on official statistics.

Note: (A) = Including Argentina, (B) = Excluding Argentina.

* Because of Argentina's high level of consumption the increase in consumption in that

country has been considered as being merely proportional to demographic growth.

^b These figures were not used in the calculation on account of their variability.

* In view of the difficulty of estimating Argentina's future production, the target figures of the Second Five-Year Plan were added to the projection calculated for the other countries.

Emphasis should further be placed upon the continuing shift of the traditional flow of trade as regards the source of wheat shipped to those countries of the region which require imports. During the five-year period 1934-38, such imports from Latin American countries—particularly those from Argentina—amounted to 1.2 million tons and accounted for about 79 per cent of the aggregate. During the five-year period 1946-51, this figure dropped to only 812,000 tons and, since there was an accompanying increase in the deficit, only 35.5 per cent of the region's needs were met from Latin American sources. Poor Argentine crops aggravated this situation in 1952. The year 1953 showed a partial recovery but, although the quantum of 1.3 million tons was slightly larger than the pre-war average, it represented only 41 per cent of aggregate imports. (See table 47.)

Table 47. Latin America: Total wheat imports and their origin

(Thousands of tons)

	1934-38	1946-51	1952	1953
Total imports.....	1,509	2,288	3,219	3,118
Imports from within the region.....	1,185	812	297	1,286
Imports from other sources.....	324	1,476	2,922	1,832
Percentage of imports from within the region to total imports.....	78.5	35.5	9.2	41.2

Source: Economic Commission for Latin America, based on official trade statistics.

(b) Production for export

The only regular wheat exporter of Latin America is Argentina, although other countries—particularly Uruguay

in recent years—have on occasions shown exportable surpluses.

The difficult situation of the world wheat market at the beginning of 1953/54 was characterized by a growing accumulation of stocks and downward price trends, but this was no obstacle to the maintenance of guaranteed price policies and the encouragement of greater domestic production by the governments of Latin American countries exporting and importing wheat.

Argentina's wheat production, which had tended to decline during the preceding ten years, recovered sharply in 1952/53. The recovery continued at the beginning of 1953/54, owing to the stimulus of the targets established for the Second Five-Year Plan and to the maintenance of the same guarantee price levels as in the preceding year. Nevertheless, although 4.7 per cent more land area was sown, the harvest was almost 19 per cent lower because unfavourable weather conditions intervened.

The surpluses on the world wheat market did not affect Latin America to the anticipated degree. The region had an exportable surplus of almost 3.5 million tons at the end of the 1953/54 harvest,⁶ which had to compete on a market where the supply is still greater than the demand.⁷

As regards the situation of surplus stocks, Argentina, because it is not a party to the International Wheat Agreement, was able to benefit from the high prices maintained by the Agreement by competing on the free wheat market.

⁶ After allowing for 1953/54 production, stocks carried over from the preceding harvest, domestic consumer requirements and strategic reserves, Argentina's surplus amounted to 3.1 million tons. The surplus in Uruguay stood at 360 thousand tons.

⁷ On 1 July 1954, reserve stocks of the four main wheat exporters—Argentina, Australia, Canada and the United States—totalled 47 million tons, that is, more than 50 per cent above the level on 1 July 1953.

Furthermore, because Argentina is outside the dollar area, negotiations could be undertaken with countries with no dollar availability and the numerous bilateral trade agreements could be used for this purpose. Argentina was thus able to sell its entire exportable surplus at prices which, although slightly below those of the world market, were often offset by other advantages arising from these agreements.

All these factors placed Argentina in a most favourable position in relation to the other main wheat exporters: Australia, Canada and the United States. For example, the 19.3 million tons exported by these three countries during 1953 contracted to only 15.2 million tons in 1954. Conversely, Argentina's exports increased during the two years from 2.5 to 2.9 million tons. In brief, while Argentina accounted for only 11.5 per cent of world wheat exports in 1953, the proportion rose to 16.1 per cent in 1954. (See table 48.)

The position of Uruguay was less favourable; until September 1954 only a little more than 200,000 tons had been sold to Brazil and Paraguay, while the remaining exportable surplus of 160,000 tons caused numerous storage problems and a consequent waste.

Table 48. Latin America: Exports of wheat from the main producers during 1953 and 1954

	(Thousands of tons)		
	1953	1954	Percentage variation 1954 to 1953
Australia.....	2,730	2,069	-24.2
Canada.....	9,205	6,851	-25.6
United States.....	7,405	6,246	-15.7
TOTAL	19,340	15,166	-21.6
Argentina.....	2,512	2,901	+15.5
GRAND TOTAL	21,852	18,067	-17.3

Source: Food and Agriculture Organization, *Monthly Bulletin of Agricultural Statistics*, April 1955.

2. Maize

Latin America's maize production, which until 1952/53 had slowly moved upwards after the decline during the Second World War, showed a sharp upswing in 1953/54, thanks to more intensive maize cultivation in a number of countries, mainly Argentina, Brazil, Chile, Cuba, Mexico, Peru and Uruguay. Of these, Brazil, Chile and Mexico registered record crops. Aggregate regional production increased slightly more than 17 per cent, which is the highest increment recorded during the last twenty years. (See table 49.)

Elsewhere in the world—excluding the USSR—production rose 2.8 per cent, from 122.6 to 126.0 million tons. Latin America's share therefore increased from 12.1 to 13.6 per cent.

The results obtained in 1953/54 may be attributed to the stimulus for maize production in countries such as Argentina, Cuba and Mexico, to excellent market conditions in Brazil during 1953, and to the general adoption of modern farming techniques, including in some cases the sowing of hybrid varieties.

Table 49. Latin America: Maize production

(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^a	Production of those countries which are importers or occasional exporters ^b
1947/48.....	17,728	5,200	12,528
1948/49.....	15,536	3,450	12,086
1949/50.....	13,808	836	12,972
1950/51.....	16,398	2,670	13,728
1951/52.....	15,268	2,040	13,228
1952/53.....	16,933	3,550	13,383
1953/54.....	19,871	4,450	15,421

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina.

^b Rest of Latin America.

^c Subject to revision.

In Argentina, the only exporter, the Government continued to lend its support by establishing an encouraging price which was equal to that of the preceding year and by granting broad facilities for mechanized farming. Despite the smaller area sown, high yields enabled a harvest of 4.5 million tons to be reaped, 25 per cent larger than in 1952/53.

Two circumstances favoured the 18 per cent increase in Brazil's maize production. Firstly, high prices on the domestic market in 1953 had encouraged farmers and similar price levels were expected for 1954. Secondly, coffee producers had to seek new sources of income to replace the losses caused by the frosts of July 1953 and to give work to unemployed labour. A greater area was sown with maize, and, because good weather conditions prevailed, a record crop of 7.1 million tons was obtained.

In Chile, the area sown with maize was expanded because the prices for maize were relatively more favourable than those for sunflower seed, its main competitor for the factors of production. More hybrid seed was also available, resulting in excellent yields. The crop—a record for Chile—stood at 97,000 tons, or 46 per cent above the preceding farm year.

The protection given by governments to this crop led to encouraging results in Cuba and Mexico, where production rose by 19 and 20 per cent respectively in comparison with 1952/53. Measures equivalent to establishing guarantee prices were adopted for the first time in Cuba. Although they were not applied to the whole crop, they prevented the sharp seasonal price fluctuations which normally affect this cereal. In Mexico, good weather led to the largest crop ever recorded. Government action through a higher guarantee price and financial facilities for technical improvements in farming contributed also to this high production level.

Maize production figures showed very little change elsewhere in Latin America, although it should be noted that in Central America the aggregate crop was almost 9 per cent lower.

Statistics of maize consumption by the peoples of Latin America cannot be established because information is lacking on the percentage of the crop used for fodder. In recent years, maize has been increasingly used to improve the diet of livestock and poultry, in view of the high prices

Table 50. Latin America: Average maize yields in selected countries and in the United States

(Kilogrammes per hectare)

	1930-34	1935-39	1940-44	1945-49	1950-53	Percentage variation 1950-53 to 1930-34
Argentina.....	1,862	1,748	1,908	1,786	1,348	-28
Brazil.....	1,418	1,394	1,288	1,254	1,245	-12
Chile.....	1,552	1,378	1,392	1,360	1,343	-13
Paraguay.....	—	—	1,240	1,309	1,229	-1*
Uruguay.....	692	626	580	538	615	-11
United States.....	1,386	1,568	2,007	2,239	2,402	+73

Source: Economic Commission for Latin America, based on official statistics.

* Percentage variation of 1950-53 to 1940-44.

commanded by meat, milk, eggs, etc. Moreover, it should be noted that the growing *per capita* consumption of rice and wheat may have displaced maize in the region's diet.

There are many possibilities for expanding maize production, especially at present, when many countries have proved the efficacy of using hybrid maize and improved varieties. Before the new techniques had been introduced, the agricultural authorities of the region were seriously concerned with the problem of increasing production in face of a progressive decline in unit yields. Although it might be premature to affirm that this decline has been arrested, since experience on hybrids and improved varieties is still scanty, it is very possible that the downward trend will be reversed by their use.

In 1953/54 the average yield of the main producer countries improved by 11 per cent in relation to 1952/53 and by about 6 per cent in comparison with the average for the preceding five-year period.

The enormous possibilities of increasing Latin America's yields become still more apparent when the evolution of yields in some countries is compared with the progress made in the United States, the world's principal maize producer. In some Latin American countries yields declined from 1 to 28 per cent between 1930-34 and 1950-53, while those of the United States improved by 73 per cent over the same period. The progress achieved since 1940-44, when the United States was faced with the problem of increasing agricultural production as a whole, is particularly significant. Moreover, it shows that substantial results can be obtained in quite a short period on the basis of continuous agricultural research. (See table 50.)

3. Rice

Latin America's rice production presents an interesting and varied picture. After a period of rapid growth during the initial post-war period, production appeared to have reached a standstill by 1948. The 1953/54 crop recovered sharply, since the 5.1 million tons produced represent a 7.5 per cent increase. (See table 51.)

This increase took place in countries which have already passed the stage of self-sufficiency, so that the region's export position has also improved. Low prices, however, obliged all countries wishing to compete on the world market to grant subsidies or preferential exchange rates. Latin America's share of world production (excluding that of the USSR) remained at the same level as in the preceding year, namely 3 per cent.

Table 51. Latin America: Production and apparent consumption of rice

(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^a	Production of those countries which are importers or occasional exporters ^b	Apparent total consumption	Per capita consumption (kilogrammes)
1947/48..	3,852	2,915	937	3,632	24.7
1948/49..	4,113	3,134	979	4,176	27.7
1949/50..	4,448	3,550	898	4,565	29.5
1950/51..	4,563	3,512	1,051	4,669	29.5
1951/52..	4,478	3,259	1,219	4,368	27.0
1952/53..	4,735	3,392	1,343	4,889	29.4
1953/54 ^c .	5,092	3,742	1,350	..	..

Source: Economic Commission for Latin America, based on official statistics and foreign trade yearbooks.

^a Brazil, Dominican Republic, Ecuador and Mexico. From 1951, Mexico's exports declined appreciably.^b Argentina, Chile, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.^c Subject to revision.

The higher production in Argentina, Brazil, Cuba, the Dominican Republic, Mexico and Uruguay fluctuated between 8 and 17 per cent; record crops were harvested in the first two countries and in Uruguay, so that all three had substantial export surpluses available.

The Cuban crop increased sharply—by 17 per cent—above the preceding year's level. Faced with the need for a partial substitution of sugar cane, for which the export market had contracted, the Government development policy has encouraged and guaranteed rice cultivation by substantial credit advances and mortgages on the harvest.

Bad weather in Chile and Peru caused lower average crops, although production was still sufficient to meet domestic requirements and to leave small exportable surpluses.

Per capita rice availabilities for consumption in Latin America have remained practically stationary throughout the last five years. During the pre-war period only 18 kilogrammes were available for each inhabitant, but fluctuations were slight after 1949, when consumption stood at 28-29 kilogrammes *per capita*. The situation has been very similar in all countries, with the exception of Colombia and Peru, where sharper fluctuations were evident, doubt-

less the result of supply difficulties rather than of changes in nutritional habits.

Optimum climatic and soil conditions in almost all Latin American countries and the progress achieved in developing rice suggest that not only could the region become self-sufficient but that exports might be expanded under favourable market conditions. Nevertheless, the world market seems to offer few prospects for expansion, unless domestic and international prices can be harmonized. A gradual recovery in world production has occurred over recent years and the 1953/54 crop appears to have been 8 per cent larger than that of 1952/53. Concurrently, purchases of importing countries have been falling and *per capita* consumption is probably lower than during the pre-war period. Furthermore, better relative prices for other cereals seem to be causing some shift towards other grains or tubers.

4. Sugar

In 1953/54 Latin America produced 10.3 million tons of sugar, which was 2 per cent above the level of the preceding year. (See table 52.)

Table 52. Latin America: Production and apparent consumption of sugar

(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^a	Production of those countries which are importers or occasional exporters ^b	Apparent total consumption	Per capita consumption (kilogrammes)
1947/48..	9,808	6,955	2,853	2,966	20.2
1948/49..	9,156	6,175	2,981	3,442	22.8
1949/50..	9,352	6,459	2,893	3,781	24.5
1950/51..	10,031	6,763	3,268	3,980	25.2
1951/52..	11,605	8,283	3,322	4,006	24.7
1952/53..	10,135	6,392	3,743	4,308	25.9
1953/54 ^c	10,337	6,231	4,106	..	..

Source: Economic Commission for Latin America, based on national production statistics and foreign trade yearbooks.

^a Cuba, Dominican Republic and Peru.

^b Argentina, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay and Venezuela.

^c Subject to revision.

(a) Production for domestic consumption

The main objective of the development policy in countries which are sugar importers has been to meet domestic requirements. These efforts, and those of countries which have already reached or exceeded self-sufficiency, caused a 9.7 per cent rise in sugar production in relation to the preceding year.

Among the importing countries where the position has improved are Bolivia, Chile, Uruguay and Venezuela. The first three are still far from self-sufficient, and it is believed that in some cases it is unattainable. A new sugar mill is being completed in Bolivia, while existing installations are being enlarged and modernized.

Chile provides an interesting example. Government plans to foster sugar-beet production and to establish sugar mills have not been aimed primarily at replacing sugar cane imports, although these purchases constitute a serious drain on the restricted foreign exchange budget. The main

objective has been a greater diversification of the type of farming in certain areas of Chile so that wider crop rotation can be achieved, with a consequent improvement in meat and cereal yields. During 1954, Chile produced its first domestic sugar with an output of 4.5 thousand tons. It is planned to reach a production of 60 thousand tons during the next seven years by establishing three new mills and by enlarging the mill which recently entered production.

In 1953/54, Uruguay's sugar output increased from 12,400 to some 22,000 tons. Installed capacity stands at 50,000 tons.

Through the developments planned in the national sugar programme, Venezuela increased production by 25 per cent; it is hoped to balance the present domestic deficit of 20,000 tons by completing two new mills which are being constructed and will soon enter operation.

Argentina, Colombia and Ecuador are among the countries which have managed to become self-sufficient and even show occasional exportable surpluses. Through the establishment of new mills and the modernization of others, Colombia's output rose 7 per cent and in 1954, as was also the case of Argentina, there was a surplus for export.

Brazil should be considered separately from the other sugar producing countries because its output shows special characteristics. The protective policy for the sugar industry, which has been in force for some time, has given an exceptional impetus to the cultivation of sugar cane in some states, particularly São Paulo and Paraná. Sugar cane has even displaced some other crops. The 1953/54 sugar crop stood at 2 million tons, that is, 14.1 per cent above the previous year and about 33 per cent above the 1949-53 average. Although substantial tonnages were used for industrial alcohol, exportable surpluses still remained which, added to the unused stocks carried over from the preceding year, were difficult to sell.⁸ The Government has therefore been obliged to establish production quotas for the various states.

Sugar consumption has advanced rapidly in Latin America. The income-elasticity of demand for this commodity, at the low consumption levels which are generally prevalent, is close to the unit value and even exceeds it in many countries. There are also several industrial uses for sugar which considerably increase the demand; in addition, refined sugar is being displaced by raw sugar. Nevertheless, no serious obstacles are foreseen in meeting the potential demand, particularly since Latin America is in fact a net sugar exporter. The greatest difficulty at present is the lack of capital to install new refineries or to replace the obsolete and inadequate equipment in use in many countries.

(b) Production for export

Latin America's production of sugar for export decreased by 2.5 per cent in relation to the previous year. Such exports have been more seriously affected than wheat by surpluses on the world market. The measures adopted under the International Sugar Agreement have increasingly limited the production possibilities of the Latin American signatories who, as all other members, have been obliged to accept these restrictions to prevent a further decline in prices.

⁸ Brazil, which is a party to the International Sugar Agreement, had a quota of only 175 thousand tons in 1954.

The decrease affected Cuba almost exclusively, 1954 being the second consecutive year in which it was necessary to restrict production. The crop was 5.2 per cent below the 1953 level and 32.3 per cent lower than the bumper crop of 1952. In contrast, the Dominican Republic, where the quota was also sharply reduced, maintained its level of production. Peru, which is not a signatory of the Agreement, virtually maintained the high level of 1953, thanks to favourable weather and to the improvement of agricultural techniques.

Sugar consumption in Latin America and in the world as a whole has been rising steadily, but trade has followed an opposing trend because much of the greater consumption is supplied by increases in the domestic production of individual countries.

Owing to the self-sufficiency policy of governments, far more protection has been accorded to sugar than to wheat, because almost all the countries of the region have suitable climates and soils for either sugar beet or sugar cane, and some could even become low-cost producers. Production of countries where sugar is in short supply has increased more rapidly than consumption and in open competition with the region's exporters.⁹

The basic quota assigned to Cuba for 1954 had originally been established at 2,250,000 tons of raw sugar, but two successive reductions proposed by the International Sugar Council lowered the quota to only 1,800,000 tons. An additional voluntary restriction to 1,734,000 tons was recommended in September.

These reductions caused the quota of the Dominican Republic to fall from 600 thousand to 480 thousand tons, while a further restriction to 449 thousand tons was also suggested.

Under present world market conditions and despite the restrictions which were applied, the Latin American signatories of the Agreement faced difficulties in selling their entire quotas and by the end of 1954 accumulated stocks were much larger than in 1953. Thus, for example, Cuba's stocks rose to 1,990 thousand tons by the end of 1954, as compared with only 1,480 thousand in 1953. These surpluses have given rise to a partial process of substituting sugar cane by other crops for the domestic market.

5. Coffee

During 1953/54, several of the circumstances described below caused a 2 per cent decrease in the region's aggregate coffee production in relation to 1952/53. The 1953/54 crop amounted to only 1.9 million tons, as compared with an average of 2.1 millions in the pre-war period.

World coffee production in 1953/54 appears to have reached 2,394,000 tons, or only 0.3 per cent above that of the preceding year.¹⁰ It is probable that world consumption was also around 2.4 million tons.¹¹ There was

⁹ Sugar production of the net importers of the whole world (including the USSR and the People's Republic of China) increased by 22 per cent in 1953/54 with respect to 1952/53, against a rise of only 5.4 per cent in net exporting countries and of 9 per cent for the world aggregate. (See FAO, *The State of Food and Agriculture, 1954*. Document 54/7/4186.)

¹⁰ Calculated on the basis of official figures, by ECLA for Latin America and by FAO for the rest of the world.

¹¹ See U.S. Department of Agriculture, *Foreign Crops and Markets*, Washington, D.C., September 1954.

therefore an almost perfect balance between supply and demand, if allowance is made for the small exportable surpluses which normally accumulate each year.

Latin America's share dropped from 81.0 per cent in the preceding year to 79.1 per cent in 1954. But the situation has deteriorated still more compared with the 1934-48 average, when a production of about 2.1 million tons supplied some 89 per cent of the world supply and African coffees accounted for only 6 per cent. During the last two years, the region's production has accounted for from 79 to 81 per cent of the world aggregate while its nearest competitors have contributed 14 per cent.

Coffee was undoubtedly responsible for the most remarkable developments of the 1953/54 agricultural year, because production fluctuated and there was an exceptional price increase followed by an almost equally pronounced drop which greatly affected the economy of many Latin American countries.

The unusual price increase began in mid-1949 since demand was growing in face of relatively scanty production. It encouraged a sharp rise in the area under coffee throughout the world, particularly in Latin America where a relatively large proportion of the greater crop began to enter the market by 1953/54. In mid-1953, forecasts for the 1954 world crop already suggested that the almost perfect balance between supply and demand would be upset. But serious weather conditions intervened and the *status quo* was maintained.

The disastrous frosts of July 1953 which laid waste one of the main coffee areas of Brazil, the heavy and unseasonal rains which affected plantations in the Dominican Republic, Mexico and Venezuela, and the heavy rainfall caused by hurricanes, which devastated the Caribbean area when the coffee was ripening, caused substantial damage. These events entirely offset the increases which had been foreseen, and caused production to decline. In Venezuela, the Dominican Republic, Mexico and Brazil the decrease in production varied between 5 and 23 per cent. In contrast, some other countries—Colombia, Ecuador, Haiti, Panama and Peru—showed fairly substantial increases resulting both from the greater area under coffee and the meticulous care given to the plantations. Such attention was still greater in the countries where the crop had been damaged. Owing to the exceptionally high price level, farmers devoted more attention not only to the plantations—for example modern farming techniques were used for the first time in many areas—but also to the harvest, in order to prevent waste. (See table 53.)

Despite the prevailing equilibrium, coffee prices on the world market rose to an unprecedented peak during the first half of 1954, and later declined below their original level. Several circumstances may explain this situation.

The damage caused by the frosts in Brazil was at first over-estimated and had been forecast as catastrophic when in fact it was not. A progressive price increase thus occurred, which was intensified by heavy purchases on the New York market at the end of 1953 and beginning of 1954.¹² The high prices of coffee, together with a sharper rise in retail sales, met with strong consumer resistance in the United States. It is believed that this reaction caused at least a 10 per cent decline in consumption.

¹² Between May 1953 and April 1954, the price of Santos type 4 coffee increased 63 per cent: from 0.582 to 0.95 dollars per pound.

Table 53. Latin America: Coffee production

(Thousands of tons)

Years	Total	Brazil	Colombia	Others ^a
1947/48.....	1,743	1,038	346	359
1948/49.....	1,821	1,068	369	384
1949/50.....	1,808	1,071	338	399
1950/51.....	1,792	1,080	302	410
1951/52.....	1,955	1,125	403	427
1952/53.....	1,933	1,111	384	438
1953/54 ^b	1,894	1,054	400	440

Source: Economic Commission for Latin America, based on official statistics.

^a Includes the production of Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru and Venezuela.

^b Subject to revision.

Moreover, the frequent changes in Brazilian exchange and export policies created insecurity in the export and import trade, at a time when it was becoming apparent that the frost damage had been exaggerated. In addition, a greater inflow of coffee from other sources took place and encouraging forecasts for future crops were made, all of which caused a rapid drop in prices during August, amounting to 25 per cent in two weeks.

The market has since remained weak and quotations for futures have declined steadily¹³ reaching lower levels than the 1952 average of 54 U.S. cents per pound.

Owing to all these developments, during the first nine months of 1954 world coffee exports totalled 1.3 million tons, or 10 per cent less than in the same period of 1953. The United States, the main consumer market, reduced imports during this period from 926,600 tons in 1953 to 773,100 in 1954.¹⁴ Conversely, Europe's purchases increased from 380,500 tons to 420,200 (10.4 per cent) thus accounting for 32 per cent of the aggregate.

While the share of African and Asian coffees in world trade rose from 212,000 tons to 254,000—an increase of 20 per cent—Latin America's share declined by 9.3 per cent, that is from 1,179 to 1,070 thousand tons.

According to data for the first half of 1954 as compared with the same period of 1953, the percentage of displacement for the region was greater on the United States market. While aggregate imports declined 1.6 per cent, those of Latin American origin fell by 6 per cent. Coffee imports from other sources, particularly Africa, increased by 68.2 per cent.¹⁵

The lower exports from the Dominican Republic, Mexico and Venezuela were almost exclusively due to poor crops. Brazil also produced less and its exports declined mainly because of the minimum price set by the government and

¹³ On 30 September a minimum of 51.9 U.S. cents per pound for futures for delivery in September 1955 was reached on the New York exchange.

¹⁴ For the whole of 1954, imports totalled 1,025.3 thousand tons or 18.9 per cent below the 1953 level.

¹⁵ During the first half of 1954, imports of Latin American coffee totalled 560,957 tons against 596,515 in 1953. Those from other sources increased from 37,485 tons to 63,043 tons in the same period.

the contraction of demand in the United States.¹⁶ Exports from Colombia, which had included 30,000 tons of reserve stocks in 1953, during the first nine months of 1954 were 6 per cent lower than during the corresponding period in 1953.

In fact, exports increased only from Peru, Haiti and some Central American countries, which took full advantage of the high prices during the first half year.

The developments in coffee which occurred during 1954 caused profound repercussions upon the economies of producer countries and upon their world market prospects. High coffee prices acted as an additional depressive factor upon the demand for Latin America's grades, since less concentrated coffee was consumed, the use of soluble coffee increased and other substitutes were sought. Furthermore, a greater proportion of low-grade African coffees was used in the mixtures, giving coffee from this source a new advantage on the market. It is now an open question to what extent the later price decline has re-established the position of Latin American coffee in relation to its substitutes and competitors.

6. Cacao

During 1953/54, the recovery of Latin America's cacao production which has been in evidence for some years became more marked. The 273,000 tons harvested that year represents the highest figure for the last five years and is 29 and 12 per cent higher than the pre-war average and the 1952/53 period, respectively. The region improved not only its share of world cacao production, but also its proportion of aggregate exports.

The various producer countries in Latin America have been interested in raising their current production levels, under the stimulus of greater world demand which has led to an upward movement in prices. (See table 54.)

Table 54. Latin America: Cacao production

(Thousands of tons)

Years	Brazil	Dominican Republic	Ecuador	Venezuela	Other countries ^a	Total
1947/48.....	97	30	21	24	28	198
1948/49.....	133	26	19	15	30	224
1949/50.....	153	33	30	17	32	265
1950/51.....	121	31	28	14	30	224
1951/52.....	114	32	27	16	35	224
1952/53.....	137	31	26	16	35	244
1953/54 ^b	152	32	37	16	37	273

Source: Official statistics of the respective countries.

^a Includes Mexico and Central America.

^b Subject to revision.

Plantations have been progressively enlarged in Brazil, the main Latin American producer. With some annual fluctuations, production has followed a similar upward trend and in 1953/54 accounted for more than 55 per cent of the Latin American aggregate.

Development campaigns, to rehabilitate old plantations and to establish new areas, are being carried out in coun-

¹⁶ From 933.5 thousand tons in 1953, Brazilian exports fell to only 655 thousand tons, representing a 30 per cent reduction and the lowest export level since 1918. Exports to the United States were only 340.3 thousand tons, compared with 564.8 and 542.9 thousand in 1952 and 1953, respectively.

tries such as Ecuador and Venezuela, where cacao is an important agricultural export. Special attention is being paid to disease control, either through direct measures or through the planting of resistant varieties. The results obtained in Ecuador have been particularly favourable and production has risen substantially. Similar measures have been adopted in Colombia so that all domestic consumption requirements can be met during the first stage. Mexico is among the minor producers where production has shown steady progress.

Latin America's cacao prospects appear to be encouraging in view of the efforts made by a number of countries and of the vast tracts of suitable land. These efforts have already shown signs of success; they become all the more significant when production is contrasted with the downturn in world output, which in 1953/54 declined a further 1.3 per cent in relation to the preceding year. Latin America's share of the total has thus risen from 32 to 36 per cent in the last two years. Although it is true that the weather was unfavourable for the main African producers (Nigeria and the Gold Coast), some observers consider that there are other basic problems, whose far-reaching consequences will not be felt in the immediate future. Among them is the beginning of a trend which must become more marked in the future, perhaps because of the increase in the number of trees which have passed the stage of maximum productivity and on account of climatic changes which are causing modifications in the ecological conditions of that region.¹⁷

The greater demand for cacao witnessed in recent years, caused mainly by higher consumption in some European countries—especially Germany and the United Kingdom—has led to a rise in prices which reached a peak level during the first half of 1954. Latin America's exports, therefore, encountered very favourable conditions. Accompanied by higher production, exports expanded to 140,000 tons during the first nine months of 1954 as against 129,000 tons in the same period of 1953. In contrast, cacao exports from all other sources dropped from 436 to 380 thousand tons, a decrease of 12.9 per cent.

7. Edible oil-seeds

The supply of edible oils and fats for Latin America's population poses a serious problem. Production of the region is insufficient to meet the demand and additional supplies must be imported in increasing quantities. In 1953/54, the output of oleaginous substances increased by about 6 per cent, although production of sunflower seed and peanuts declined. (See table 55.)

The only oil-seed which shows a steady upward trend is cotton-seed, since its cultivation for use as a fibre is increasing. Although the trade in this product is relatively small, because the seeds have a low oil content, in recent years the manufacture of this oil and its trade have been expanding. Nevertheless, they are still far from the output which might be reached if the available raw materials were fully utilized.

Because the area sown with sunflower seed in Argentina and Uruguay was smaller, production, which until 1950/51 had risen steadily, dropped in 1953/54. Both countries, particularly Argentina, formerly supplied other countries of the region with the oil or seeds, but such exports have now been limited to a minimum.

¹⁷ See FAO, *The State of Food and Agriculture, 1954*, op cit.

Table 55. Latin America: Production of edible oil-seeds^a

(Thousands of tons)

Years	Cottonseed	Sunflower seed	Peanuts	Sesame
1947/48.....	1,153	1,000	328	102
1948/49.....	1,499	1,196	310	95
1949/50.....	1,680	823	294	109
1950/51.....	1,523	1,208	356	121
1951/52.....	1,892	866	404	124
1952/53.....	1,677	576	463	119
1953/54 ^b	2,043	504	439	127

Source: Official statistics of the countries concerned.

^a For weighted total, see table 38.

^b Subject to revision.

Argentina satisfies almost its entire requirements for edible oils,¹⁸ while Brazil and Uruguay only require relatively small olive oil imports; but the remaining countries of the region show a sizable deficit in the production of the one or more types of edible oils consumed. This situation is of great concern to many of the countries because they must import more than half of their consumer requirements.

Although this unfavourable situation should encourage greater production to cover these deficits, cultivation of oil-bearing crops in Latin America has advanced very little, owing to the lack of adequate incentives. The more pronounced stimulus given to other crops reacted unfavourably on prices of oleaginous products and they were gradually displaced. Wheat in Uruguay and maize in Argentina and Chile provide examples of more favoured crops. Moreover, the higher yields of these cereals through the use of better techniques or improved strains have caused oleaginous crops to be less profitable to the farmer. In the case of Argentina, cryptogamic plagues are a further obstacle to expansion.

Faced by small supplies of raw materials for the processing factories, several countries adopted price-levelling policies in 1953/54, which it is hoped may give positive results in 1954/55.

The recent evolution of the production of these substances has transformed Latin America into a net importer of edible oils and oleaginous products during the last few years. In fact, imports of processed products have risen at the same time as exports of oil-bearing materials have declined. (See table 56.)

8. Cotton

Good weather and the extension of irrigated areas in some of the main cotton exporting countries, as well as continuing development measures in countries with inadequate domestic production and a certain recovery in the world market, all led to a record production figure. During 1953/54, output reached 1,160,000 tons of ginned cotton, which was 22.8 per cent above that of the previous crop. (See table 57.) Latin America's share of world production thus rose from 12.2 to 14.4 per cent.¹⁹

¹⁸ In 1954, however, as a consequence of the small sunflower seed crop, Argentina was obliged to import a substantial volume of cotton-seed oil.

¹⁹ World fibre production rose from 7.8 to 8.2 million tons between 1952/53 and 1953/54.

Table 56. Latin America: Net imports and exports of edible oils and oleaginous products^a(Thousands of dollars)^b

	1934-38	1946-51	1952	1953
Net imports				
Edible oils.....	29,523	—	19,343	20,251
Oleaginous products.....	—	—	—	—
Net exports				
Edible oils.....	—	11,409	—	—
Oleaginous products.....	9,724	8,943	14,231	5,184
Total oils and oleaginous products				
Net imports.....	19,799	—	5,112	15,067
Net exports.....	—	20,352	—	—

Source: Economic Commission for Latin America, based on foreign trade yearbooks.

^a The term "net exports" refers to those commodities exported to countries outside the region, from which have been deducted imports of extra-regional origin made by Latin American countries whose domestic production is inadequate. Net imports have been estimated by deducting imports of Latin American origin and commodities exported to countries outside the region from total imports.

^b At 1950 prices.

Table 57. Latin America: Cotton production

(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^a	Production of those countries which are importers or occasional exporters ^b
1947/48.....	619	609	10.0
1948/49.....	810	798	12.5
1949/50.....	910	896	14.3
1950/51.....	878	867	11.2
1951/52.....	1,066	1,048	17.8
1952/53.....	945	920	24.7
1953/54 ^c	1,160	1,124	35.9

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina, Brazil, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay and Peru.

^b Colombia, Ecuador and Venezuela.

^c Subject to revision.

With the exception of Venezuela production had improved in all countries during 1952/53 and Colombia, the Republics of Central America, Mexico and Peru harvested record crops.

As in former years, during 1953/54 the efforts of countries which import cotton again became manifest. Their production was 45 per cent higher than in the previous year. The results obtained by Colombia through a campaign based on fixing incentive prices, agricultural extension programmes and import controls should be noted. Bad weather and serious attacks of various diseases caused a smaller crop in Venezuela, despite the intense efforts which are being made to expand cotton production.

Among the exporters, Brazil recovered from the production decline experienced during the previous year. This was achieved because of good weather, which raised the yield, and despite the discouragement to farmers caused by poor market conditions for the preceding crop. A total of 447.3 thousand tons were produced, or 19 per cent above the previous year.

In Mexico, greater production was the result of effective pest control, abundant rainfall and the cultivation of new

areas, all of which considerably improved yields. Peru not only sowed a record area, but in addition obtained the highest crop yet registered. A determining factor was the recent expansion of the irrigated area in the Piura valley.

If Latin America's share of the world cotton market is evaluated on the basis of data for the first nine months of the year, a notable recovery in relation to the same period in 1953 is apparent. In fact, although world fibre exports only expanded by 9.9 per cent, those of Latin America rose by almost 50 per cent while exports from the remaining countries increased by only 0.6 per cent.

Brazil was the principal exporter, exceeding the total for the previous year by a higher percentage than any other country. The decision adopted by the Government to re-enter the world cotton market and to compete at current prices enabled Brazil to sell the surpluses carried over from two preceding crops.²⁰

The volume of exports declined only in Argentina (71 per cent) and Peru (8 per cent).

9. Wool

Latin America's wool clip increased slightly in comparison with that of the preceding year. (See table 58.) The same minor development occurred for world production, so that Latin America's share of the aggregate remained approximately at the 1952/53 level of 17 per cent.

Table 58. Latin America: Wool production

(Thousands of tons)

Years	Total production	Production of those countries which are habitual exporters ^a	Production of those countries which are importers or occasional exporters ^b
1947/48.....	321	273	48
1948/49.....	303	256	47
1949/50.....	314	260	54
1950/51.....	323	266	57
1951/52.....	317	259	58
1952/53.....	332	271	61
1953/54 ^c	333	272	61

Source: Economic Commission for Latin America, based on official statistics.

^a Argentina and Uruguay.

^b Brazil, Chile, Colombia, Mexico and Peru.

^c Subject to revision.

Argentina and Uruguay are the two main producers and exporters in Latin America. In relation to the aggregate, the wool production of these countries showed little change from the previous year, since the larger Uruguayan clip was offset by a decline in Argentina's production. The uneven evolution of wool in both countries has become increasingly apparent in recent years.²¹

The expansion which took place in Uruguay was due to the shift from cattle to sheep which took place because the latter provide a greater profit for farmers and the pasture

²⁰ Exports during the first nine months of 1954 totalled 242 thousand tons against 25.5 and 55.1 thousand for similar periods in 1952 and 1953.

²¹ While Uruguay's production rose from 68.2 thousand tons in 1947/48 to 91.9 thousand tons in 1953/54, Argentina's declined from 204.3 thousand tons to 180 thousand over the same period.

land in Uruguay offers good facilities for sheep raising. This situation is emphasized by the fact that the ratio per head of sheep to cattle has risen from 2.6 in 1946 to 3.6 today. The question of giving greater or less support to wool production in Uruguay was discussed at some length during 1954. Farmers requested greater protection for exports, but this was refused because, under present circumstances, it was considered that such a measure would aggravate the shift from cattle to sheep.

In contrast, Argentina's production declined by about 3 per cent from the already low level of the preceding year, apparently because economic incentives were lacking.

The remaining countries of Latin America produce wool mainly for domestic consumption and a steady progressive development is visible. Nevertheless, during the latter part of the year, Chile showed a 10 per cent drop in production, primarily caused by feeding problems in the southern part of the country created by large numbers of rabbits. Peru's position remains constant, although attempts are clearly being made to enlarge sheep farming activities.

10. Meat

Meat and other livestock products provide a difficult supply problem. Demand has grown more rapidly than production and in almost all the countries of Latin America serious supply difficulties have arisen, even when the animal population has increased.

Adequate information on the expansion of animal stocks is not available, but it appears that meat production has been decreasing since 1950. In 1954 production of beef, mutton and pork²² dropped 6 per cent below the 1953 level and 9.8 per cent in relation to 1950. On a *per capita* basis, the decrease was even sharper so that in 1954 it was 17.2 per cent less than in 1950. (See table 59.)

Table 59. Latin America: Production of beef, mutton and pork^a

(Thousands of head)

Years	Cattle	Sheep	Pigs
1948.....	21,653	19,512	10,277
1949.....	22,623	18,522	10,746
1950.....	23,155	16,536	11,035
1951.....	22,877	13,867	11,271
1952.....	22,195	17,425	11,674
1953.....	21,618	17,803	11,855
1954 ^b	20,387	18,002	10,674

Source: Economic Commission for Latin America, based on official statistics.

^a Refers only to slaughtering and export of cattle-on-the-hoof. Variations in animal stocks have therefore not been taken into account. For weighted total, see table 38.

^b Subject to revision.

Among the different types of livestock, cattle is from any point of view the most important for consumption purposes, but it also presents the most serious distribution and breeding problems. From the pre-war period beef production increased slowly until 1950; since that year there has been a progressive decline in the number of head slaughtered annually, from 23.2 million to 20.4 million, a decrease of 12 per cent. During the same period only Central

America, Cuba, Mexico, Paraguay and Venezuela were able to raise the rate of slaughter.

The obstacles to Latin America's livestock production vary from country to country, but they may in general be grouped as follows: (a) countries where the animal population has increased adequately, but where transport and distribution systems are not sufficiently developed; (b) exporting countries, where the stagnation or decline in livestock, accompanied by higher consumption, has obliged governments to sacrifice exports to the domestic demand, or vice versa; and (c) countries where the production from livestock has remained almost stationary, while the demand for meat has been growing.

Brazil and Mexico are typical examples of the first category. Brazil, however, appears to face the gravest problems since, although the cattle population seems to have grown between 1950 and 1954 by almost 13 per cent, beef output in 1954 was only 4.7 per cent greater than in 1950 and virtually the same as in 1953. Serious transport difficulties, lack of adequate pasture land between the breeding areas and slaughter-houses, restrictions of the zones from which meat packing plants may purchase stocks, and a strict price control policy that discouraged sales during most of the year, probably constitute the causes of this situation and explain why beef production remained stationary during 1954 while the cattle population rose. Brazil could become a substantial meat exporter, but, paradoxically, exports which were sizable at one period, declined during the forties and are at present of practically no significance. Production increases, therefore, have been used in meeting the greater domestic demand.

Among the exporters which may be classed in the second group are Argentina and Uruguay. Bad weather and economic factors which have created competition between cattle raising and other agricultural activities are among the determining characteristics of this group. The main competition in Uruguay was between sheep and cattle raising; it has been encouraged by the favourable conditions for wool, at the expense of cattle raising because the grazing capacity of the country has not increased. These and other causes of minor and transitory significance²³ have led to a 14 per cent decline in slaughtering for beef between 1953 and 1954. Cattle stocks in Argentina improved by 2 per cent in relation to the previous year, but it was 10.5 per cent lower than the preceding five-year period.

The majority of the other South American countries may be classified as belonging to group (c). Although, broadly speaking, the production of meat has not varied greatly in face of the growing consumption, it should be noted that while some countries are trying to bridge the gap through development measures and higher imports, others are sacrificing some of their livestock population in order to meet this demand.

The latent possibilities of Latin America's livestock are enormous. Resources are available to raise every type of activity based on livestock, but sufficient incentives are lacking to meet both aggregate domestic requirements and a rapid growth of exports. Furthermore, state co-operation in several fields—mainly animal husbandry research—is still inadequate.

There has been a sharp decline in exportable surpluses; Latin America's position on the world meat market has deteriorated and consequently a former major source of

²² Including exports of cattle-on-the-hoof.

²³ See the chapter on Uruguay in Part II.

foreign exchange has been lost. Latin America's net meat exports,²⁴ which in 1953 stood at 94.1 million dollars (at 1950 prices), were 42 per cent below pre-war levels, while exports from other areas increased by 13 per cent over the same period. The region's contribution to the world meat trade has therefore declined from 35 to less than 20 per cent.

In addition, meat imports into the Latin American countries with inadequate supplies have tended to rise. During the five-year periods 1934-38 and 1946-51 such imports increased almost threefold—from 24.4 to 69.5 million dollars (at 1950 prices)—declining later to an average level of 50 per cent above the pre-war period. Simultaneously, imports from Latin American sources have recently declined by 50 per cent from the 1946-51 average, falling from 56.6 million dollars to about 24 millions.

II. MINING²⁵

1. Recent events and trends

Latin America's mining industry, the production of which is almost exclusively destined for export, was affected by contradictory trends during 1954. The outlook at the beginning of the year was not very encouraging for most of the non-ferrous metals, because their prices were below the average levels for 1953. Producers made an effort to offset this price decline, and the consequent reduction in their earnings, by increasing the volume of exports, but in some countries marginal mines were already withdrawing from the market. During the second quarter, a reaction began to be felt, both in prices and export tonnages, and by the end of the year conditions were much more favourable, except for tin which continued to encounter marketing problems.

The available statistics reveal that from 1953 to 1954 Latin America's iron ore production rose by 35 per cent

²⁴ Including tinned, preserved and chilled meat, as well as exports of cattle-on-the-hoof. The figures represent exports to other regions, after the deduction of imports made by Latin American countries from sources outside the region.

²⁵ This section examines general events and trends in the production and consumption of the metals which establish Latin America in a prominent place both as a source of world supply and as a possessor of substantial reserves. These minerals are copper, tin, lead, zinc and iron ore. The analysis by countries in Part II includes a description in greater detail of the more significant events in individual mining industries. Coal and petroleum are discussed in section IV, Energy, of this chapter.

(although its value is the lowest among the group of metals reviewed here). No change took place in zinc output, but a decrease of 3 per cent in copper and 6 per cent in lead production occurred during the same period. The 20 per cent reduction in tin output was the sharpest fall recorded during the last ten years. (See table 60.)

In actual fact, better results were achieved for exports than for production, because in certain cases, such as that of copper, some tonnages of the stockpiles remaining from 1953 were sold in addition to current output.

To complete the over-all picture of Latin American mining during 1954, attention should be drawn to other facts which, unlike those enumerated above, are not of a purely quantitative nature. Once again there are contradictory trends, which are at present difficult to assess on a balanced basis. For example, a depressive influence is exerted upon lead and zinc by the renewed possibility of a tariff increase, under pressure from domestic mining groups in the United States, which would mean the loss of one of the largest current markets for both these metals. Fortunately neither constitutes a staple export from the countries of Latin America. To date, there has been little indication of any change in the attitude of the United States Government.

Two recent events will help to ensure the sale of the present output of tin. Firstly, Bolivia has signed the International Tin Agreement between producers and the majority of consumers.²⁶ Secondly, the continuation, for one year, of operations at the Texas smelter for Bolivian ores, which gives more time for a smelter in Bolivia to be established.

As regards copper, apart from the remarkable improvement in the market situation between the first half of the year and the latter months of 1954, the discussion and subsequent approval (February 1955) of the so-called "new régime" for the large copper producers in Chile should be noted, because stronger incentives to increase production are offered to foreign companies. Furthermore, an agreement was signed between the Peruvian Government and a group of enterprises for the exploitation of the rich Toquepala deposits.

The entry into production of Venezuela's iron ore deposits coincided with a greater utilization of this ore in other regional countries as the raw material for domestic industry, the expansion of which is based either on new

²⁶ The exceptions are Brazil, the United States and Western Germany.

Table 60. Latin America: Quantum of production of basic industrial metals

(Thousands of tons)

	1951	1952	1953	1954 ^a	Percentage variations	
					1954 to 1953	1954 to 1950
Copper.....	492	514	481	468	- 3	- 5
Tin.....	33	32	36	29	-19	-12
Lead.....	369	401	381	358	- 6	- 3
Zinc.....	328	409	404	403	—	20
Iron.....	4,701	4,856	6,091	8,242	35	75

Source: For iron ore: official statistics and direct information; for other metals: *Yearbook of the American Bureau of Metal Statistics, 1953*, New York.

^a Estimates are based on either 6 or 11 months' production, according to country. The data are provisional and subject to revision.

steel plants or on the enlargement of those already in existence.

Two more points must be emphasized in this rapid overall review. The first refers to the position of Latin America's mining activities within the framework of world production. During the five-year period 1948-53, the region's share of the aggregate world output decreased in the case of copper and tin, remained the same in that of lead, and increased only in that of zinc. (See table 61.)

The second feature represents the evolution of Latin America's consumption of certain metals produced by the region. A higher proportion of copper and tin is now consumed, but the share of lead and zinc is somewhat lower. In the case of iron ore, although consumption is lower in relative values because of the exploitation of the vast Venezuelan deposits, the greater domestic consumption in absolute terms is a characteristic feature of the expansion of heavy industry in several Latin American countries.

2. Copper

The output of the members of the Copper Institute,²⁷

²⁷ The Copper Institute is a private United States organization, incorporating most of the world's large enterprises concerned with the production, smelting, refining and sale of copper. Its statistics are used in the preparation of the *Yearbook of the American Bureau of Metal Statistics*.

which produce approximately 70 per cent of the world's aggregate virgin copper,²⁸ stood at 2,146 thousand tons in 1954, or 37,000 tons less than in 1953. The production figures for Latin America were 3 per cent lower than in the preceding year, while for the United States a decrease of 85,000 tons, or almost 10 per cent, was registered. In contrast, the remaining members of the Institute raised their output by 48,000 tons, of which Africa produced the largest share.

Assuming that the production of non-members of the Institute did not vary during the year, the aggregate world output in 1954 may be estimated at some 2,735 thousand tons. (See table 62.)

The fairly low demand for copper during the early months of the year and the accumulation of stocks in 1953 accounted for the voluntary reduction of output. In the United States, the reduction was in reality greater than the 10 per cent decline in output, since the contribution of some new mines, which entered production in 1954, made no visible difference to the country's aggregate production. Stockpiling of Chilean copper had caused a downward trend in output early in 1953, which became more acute during the second half of the year. At the beginning of 1954, the amount unsold at one moment stood at more than

²⁸ It stood at 71 per cent in 1953. Of the remaining 29 per cent, the USSR accounted for 11 and smaller producers for 18 per cent.

Table 61. Latin America: Production and consumption of selected minerals, compared with world production and consumption

	Production (As a percentage of world production)			Consumption					
				(As a percentage of world consumption)			(As a percentage of Latin American production)		
	1948	1950	1953	1948	1950	1953	1948	1950	1953
Copper.....	23.4	19.0	17.3	1.5	2.0	1.7	7.1	11.0	9.8
Tin.....	24.5	18.9	20.4	2.4	2.6	3.3	8.6	12.8	12.2
Lead.....	21.1	22.3	21.2	3.7	4.2	2.5	17.8	20.2	11.7
Zinc.....	15.1	16.8	16.4	1.3	1.7	1.5	8.2	10.0	7.7
Iron.....	—	—	—	—	—	—	28.8	32.5	25.5

Sources: See the later tables for individual minerals.

Table 62. Latin America: Production and consumption of copper

(Thousands of tons)

	1950	1951	1952	1953	1954 ^a
World production.....	2,518	2,635	2,741	2,783	2,735
Regional production.....	478	492	514	481	468
Bolivia.....	5	5	5	5	4
Chile.....	363	381	405	363	361
Cuba.....	21	20	17	15	..
Mexico.....	59	55	56	63	60
Peru.....	30	32	31	35	27
World consumption ^b	2,656	2,826	2,922	2,822	..
Regional consumption ^b	53	86	64	47	..

Sources: For 1953: *Yearbook of the American Bureau of Metal Statistics, 1953*, New York; for 1954: direct information from each country.

^a Estimates.

^b These figures refer to copper ingot. Latin

America's metal requirements have probably remained constant, if they have not actually increased. The downward trend in consumption may be attributed to the replacement of ingot by finished goods—bars, sheets, tubing, and the main alloys.

150,000 tons; but soon afterwards the United States Government purchased 100,000 tons as an addition to the strategic reserve.

The over-all picture altered radically at the beginning of the third quarter. In a very brief period, surpluses of unsold copper had given place to a shortage which sharpened progressively, until it became critical in the early months of 1955. This new situation arose from the following circumstances: (a) strikes in the United States and Chile had prevented production targets from being reached; (b) full capacity could not be achieved in the copper belt of the Central African Federation because of coal shortages; (c) greater copper consumption was caused by the expansion of industrial activity in the United States and, to an even greater extent, in Europe; and (d) the purchasing policy of consumers during this period of fluctuations in prices and industrial activity created problems which may be regarded as equalling or surpassing in importance any of the other factors. When industrial activity began to slacken in 1952-53, purchases declined because consumers and intermediaries began to reduce their stocks. As a result, the markets for newly mined copper became smaller. During 1953-54, in contrast, the expansion of industrial activity and of the subsequent consumption caused purchasers to replace their normal stocks rapidly, in anticipation of an upswing in prices. A serious temporary shortage of copper became apparent on the market.

As the shortage developed, a simultaneous and pronounced disparity between quotations on the New York and London markets became increasingly evident. By restricting copper exports and by placing strategic reserve stocks of 54 thousand tons on the market, the United States Government attempted to peg prices at 29.5 to 30 U.S. cents per pound. Conversely, quotations of more than 36 cents per pound were registered on the London market during the second half of 1954.²⁹

It is estimated that during 1955 the United States will expand domestic productive capacity by some 230,000 tons, which is not without importance in the case of a country that consumes about 50 per cent of the world copper output and imports 40 per cent of its aggregate consumption. New mines are being established in Africa to raise production by 130 thousand tons within the next few years. The Peruvian Toquepala deposits, where preparations for exploitation have begun, are expected to yield 140 thousand tons annually during the first ten years. Plans are under way in Canada to work mines that will produce about 54,000 tons each year. Broadly speaking, some twenty new and substantial copper mines throughout the world will enter production during the next two years and will add approximately 700,000 tons to the normal level of current output.

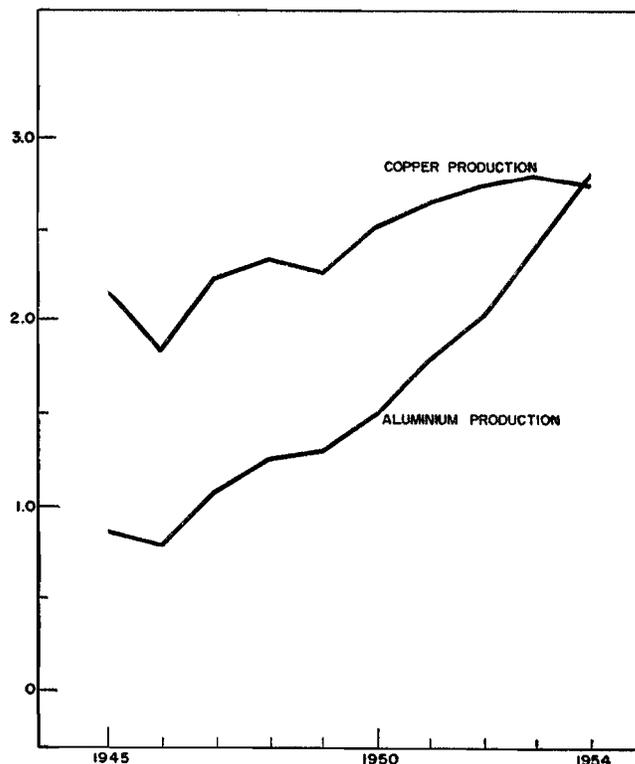
Nevertheless, the growing importance of copper's strongest present competitor must not be overlooked. Aluminium is cheaper and shows a more stable price level. The density is low and it is resistant to climatic factors, while, in addition, aluminium has excellent qualities as a conductor of electric power, for which purpose almost half the world output of refined copper is at present used. As a

²⁹ This situation continued in early 1955 and tended towards a greater disparity. On 28 January, when the United States Government agreed to raise the price to 33 cents per pound, the quotation in London temporarily reached 42 cents.

result, production of aluminium has risen by 183 per cent in less than ten years, or from 870 thousand tons in 1945 to 2,465 thousand in 1953; during the same period copper output increased by only 28.6 per cent. (See chart XVIII.)

Chart XVIII
WORLD PRODUCTION OF COPPER AND ALUMINIUM

Millions of tons
(Natural scale)



As noted earlier, an event of major significance for the region's copper activities in 1954 was the agreement signed between the Peruvian Government and a corporation which is formed of foreign producers, including a subsidiary of one of the great copper companies, and in which the largest mining concern in Peru is represented. The new corporation will exploit the deposits at Toquepala, Quellaveco, and Cuajone, in the south of Peru; a loan of 100 million dollars has been granted by the Export-Import Bank. The yield from these deposits added to current production will soon raise Peru's aggregate output to over 180,000 tons yearly.

During 1954 discussions were held in Chile on the new régime for the large copper mining companies, the legislation being subsequently approved by Congress early in February 1955. According to official statements, it is expected that a total of 420 thousand tons will be produced by the large, medium and small mining companies in 1955.

3. Tin

The international tin market witnessed a decline of 3.5 per cent in production and an increase of 3.4 per cent in consumption during 1954. Production had exceeded consumption by about 45 thousand tons in 1953, but the surplus output dropped to 33,000 tons in 1954; this figure represents 19.5 per cent of world production which de-

Table 63. Latin America: Production and consumption of tin
(Thousands of tons)

	1950	1951	1952	1953	1954 ^a
<i>World production</i>	166.0	167.5	170.5	176.5	179.0
<i>Regional production</i>	31.3	33.2	32.0	36.0	29.6
Argentina.....	0.2	0.2	0.2	0.2	0.3
Bolivia.....	30.7	32.6	31.4	35.4	29.0
Mexico.....	0.4	0.4	0.4	0.4	0.3
<i>World consumption</i>	153.0	140.0	130.5	131.5	136.0

Source: International Tin Study Group, *Statistical Bulletin*, December 1954.

^a Estimates.

creased to only 169,000 tons during the year. The reduced world total was almost entirely the result of a decline in Bolivia's production—which was lower than at any other time in the last fifteen years—since the output of the Federation of Malaya and Indonesia showed little change from the figures for 1953. (See table 63.)

Although the International Tin Agreement—to which Bolivia subscribed in June 1954—had attempted to secure relative stability, prices were even lower than those at the beginning of 1953. In fact, from 1.21 dollars per pound during the first three months of 1953, the price gradually dropped to 0.806 in August, rose slowly to 0.95 in April 1954 and subsequently declined again to 0.90 dollars in early December.³⁰

The consequences were the closing down of more than 400 small mines in the Federation of Malaya and Indonesia and a difficult situation for producers in the Belgian Congo. Broadly speaking, the world output of tin is at present mined by long-established concerns only and nowhere is any considerable sum being invested in new exploitation or prospection.

In Bolivia, uncertainty reigns as to whether operations will or will not continue at the Texas smelter, which is the property of the United States Government and absorbs approximately 45 per cent of Bolivia's output. The closing of the smelter was postponed for a period of one year only, terminating in July 1955. Secondly, because the Bolivian economy is almost entirely dependent upon tin exports, it is difficult to adjust conditions to the substantial price fluctuations quoted above. The solution adopted by the Government in 1954 was the mitigation of the internal

³⁰ In January 1955 it stood at 0.865. See also chapter II.

effects of the fall in prices on the foreign market by assuming, through the Corporación Minera de Bolivia, the burden of the losses incurred at the prevailing official rates of exchange. The cost situation is still further complicated by the slow but continuous impoverishment of the grade of ore and by the ever greater distance between the working faces and the mine entrances.

It is not surprising, therefore, that Bolivia's share of the world tin supply sank from 20.6 per cent in 1953 to 17.2 per cent in 1954. The proportion in 1929 had been 24 per cent, which fell to 13.7 per cent during the Chaco War, chiefly because of the manpower shortage. Nevertheless, during the Second World War, when hostilities prevented any production in the Far East, not only the relative but also the absolute share of Bolivia rose; in the period 1942-45, Bolivia supplied as much as 35.3 per cent of the world output, or over 40 thousand tons annually.

4. Lead and zinc

The prospects for the region's lead and zinc mining industries were unattractive at the beginning of 1954, because prices were weak on the world market and there was a clear tendency towards an even greater decline. In March, lead and zinc prices reached their lowest level in recent years and some companies mining low-grade ores suspended operations. The outlook for this branch of mining was further clouded by the possibility of higher duties on lead and zinc imports into the United States, a project which the Tariff Commission had revived in a report, submitted in May, which aimed at reducing imports in favour of mining interests in the Western United States. A slight rise in prices during the second half of the year resulted less from fluctuations in the commercial demand than from

Table 64. Latin America: Production and consumption of lead
(Thousands of tons)

	1950	1951	1952	1953	1954 ^a
<i>World production</i>	1,616	1,641	1,758	1,799	..
<i>Regional production</i>	360.5	369.6	402.3	381.9	358.2
Argentina.....	23.0	24.0	20.0	13.0	16.0
Bolivia.....	31.2	30.0	29.3	23.8	20.7
Chile.....	3.3	7.8	10.3	9.0	8.5
Mexico.....	238.1	225.5	246.0	221.5	220.0
Peru.....	64.9	82.3	95.7	114.6	93.0
<i>World consumption</i> ^b	1,744	1,649	1,594	1,752	..
<i>Regional consumption</i> ^b	72.7	72.7	50.4	44.6	..

Sources: *Yearbook of the American Bureau of Metal Statistics*, 1953, New York, and direct information; for Peru: provisional data, subject to confirmation.

^a Estimates.

^b See footnote ^b to table 62.

Table 65. Latin America: Production and consumption of zinc

(Thousands of tons)

	1950	1951	1952	1953	1954 ^a
<i>World production</i>	2,040	2,229	2,436	2,470	..
<i>Regional production</i>	343	328	409	404	403
Argentina.....	12.7	15.5	15.4	16.1	18.0
Bolivia.....	19.6	30.6	35.7	24.0	15.4
Chile.....	0.1	1.3	2.9	3.8	2.0
Mexico.....	223.5	180.0	227.4	226.5	225.0
Peru.....	87.9	101.2	127.8	139.1	143.0
<i>World consumption</i> ^b	1,986	2,055	1,964	2,123	..
<i>Regional consumption</i> ^b	34.4	43.1	33.2	31.0	..

Sources: Yearbook of the American Bureau of Metal Statistics, 1953, New York, and direct information; for Peru: provisional data, subject to confirmation.

^a Estimates.

^b See footnote ^b to table 62.

heavier purchases of domestic output in the United States for the strategic reserve. These purchases were accompanied by an assurance that tariffs in the United States would not be modified.

Compared with previous years, on the whole 1954 was relatively favourable for lead and zinc mining. But the long-term outlook is doubtful because world production exceeds consumption. Thus, although almost all mines were being exploited, there was little incentive to investment in prospecting or in the dressing of new ores.

During 1954, Latin America produced rather less than 360,000 tons of lead or 23,000 tons less than in the previous year. (See table 64.) The contraction was almost entirely caused by Peru's lower output.

As regards zinc, the region's output in 1954 amounted to approximately 400,000 tons, a figure almost identical to that of 1953. (See table 65.) Mexico and Peru are the chief producers since together they supply 90 per cent of the regional total. Devaluation of the currency favourably affected lead and zinc mining in both countries, inasmuch as it enabled the fall in world prices to be offset to some extent. But, in contrast, it led to an increase in certain important items of the operating costs. In the case of Mexico, devaluation was accompanied by a 10-25 per cent increase in the *ad valorem* export duty.

Broadly speaking, the demand did not vary significantly. The United States, in addition to being the leading producer of these metals, and as always the heaviest consumer, contributed substantially to the stronger demand by its purchases for the strategic reserve. Nevertheless, because consumption is less than production, there are adequate stocks to prevent a rise in prices.

In several of the large lead and zinc mines throughout the world, the deeper the drillings proceed the richer is the proportion of zinc. Secondly, recent Canadian discoveries in New Brunswick and Ontario will lead to the installation of large-scale zinc mines, with the advantage that the ores contain other valuable metals which may absorb some of the production costs. A combination of both factors might result in a greater supply of zinc, but if prices drop in consequence, this may also cause a proportionate rise in consumption. The growing Canadian output, which increased from 423 thousand tons in 1947 to 647 thousand in 1953, as well as additional production in Africa and Australasia, will undoubtedly influence Latin

America. It is probable that the region's share of the world market, representing between 14.5 and 17.0 per cent in recent years, will decline.

5. Iron ore

Although the value of the iron ore produced in Latin America is small when compared with that of other metals and fuels mined in the region, it has attained some importance since the Second World War. This trend has become more pronounced during the last three years, because both Peru and Venezuela have established themselves as sizable producers and exporters.

If Latin America cannot yet be considered as a major producer of iron ore, the regional reserves not only are substantial but also rank in first place, and represent 30 per cent of the approximate world aggregate. According to the latest estimates, the region's commercial reserves probably reach some 23 thousand million tons of ore, with an average grade of 50 per cent. (See table 66.) But there are also iron ore deposits which are not at present a sound commercial proposition, because of their lower grade or their inconvenient location for transport to consumption centres. They represent a potential reserve which is twice as great as commercial reserves. Moreover no systematic search for all the possible iron ore reserves in Latin America has yet been carried out and, since many unprospected areas still exist, the possibility that further large deposits may ultimately be discovered should not be ignored.

The region's production and exports of iron ore have expanded faster since 1938 than those of any other mineral. (See table 67.) This rapid increase has little significance in monetary terms because the value of the ore is low, but it is very important as the raw material for developing national iron and steel industries. In 1953, 11.7 million tons of ore were mined, with an average grade of 52 per cent. On the basis of production figures for the first nine months of the year, aggregate output in 1954 was estimated at 16.2 million tons, representing an increment of 35 per cent. During the period 1950-53, Latin America exported 70 per cent of its total production. But in 1954, despite heavier consumption by domestic iron and steel industries, as much as 80 per cent of the regions' output was shipped abroad. This rise resulted from the remarkable stimulus to exports from Venezuela, which has become the leading producer in Latin America and the major exporter of iron ore to the United States.

Table 66. Latin America: Iron ore reserves

(Millions of tons)

	Commercial reserves			Total	Fe content	
	Proven	Probable	Possible		(Percentage)	(Millions of tons)
Argentina.....	26	80	80	186	48	89
Bolivia.....	—	—	—	55	60	33
Brazil.....	1,751	7,503	7,000	16,254	50	8,127
Chile.....	77	67	51	195	62	121
Colombia.....	19	34	50	103	48	49
Cuba.....	—	3,000	—	3,000	40	1,200
Ecuador.....	—	—	1	1	60	—
Mexico.....	—	310	—	310	61	189
Peru.....	40	214	513	767	56	430
Venezuela.....	500	1,700	—	2,200	64	1,408
TOTAL	—	—	—	23,071	51	11,646

Sources: *Survey of World Iron Ore Resources: Occurrence, Appraisal and Use*, document E/2655, ST/ECA/27 (United Nations publication, Sales No.: 1954.II.D.5); for Bolivia: *Información Oficial del Jefe del Estado*, La Paz, September 1954; for Mexico: *World Iron Ore Resources and their Utilization*, document ST/ECA/6, (United Nations publication, Sales No.: 1950.II.D.3).

Table 67. Latin America: Production and consumption of iron ore

(Millions of tons of ore)

	1950	1951	1952	1953	1954
Total production.....	3,517	4,701	4,856	6,091	8,242
Argentina.....	18	20	20	22	24
Brazil.....	1,309	1,634	1,824	1,878	..
Chile.....	1,771	1,908	1,393	1,724	1,218 ^a
Colombia.....	—	—	—	18	39 ^b
Mexico.....	286	312	340	373	274 ^c
Peru.....	—	—	—	586	1,169
Venezuela.....	133	827	1,279	1,490	3,221 ^a
Consumption.....	1,143	1,348	1,441	1,554	1,625

Source: United Nations, *Monthly Bulletin of Statistics*, Vol. IX, No. 2, February 1955.

^a Estimate based on figures for the first half year.

^b Estimate.

^c Estimate based on figures for the first nine months.

The heavy consumption of steel throughout the world, and the great importance of iron ore for industrial development everywhere, ensure a stable and reliable market. Latin America's production will undoubtedly expand under the stimulus of increasing exports and of the regional demand from the growing national industries for iron and steel output.

III. INDUSTRY³¹

1. General considerations

A fresh impetus, perhaps the strongest during the past five years, was received by Latin America's industrial activity in 1954; statistics for production show a rise of 8.4 and 20.3 per cent in relation to 1953 and 1950 respectively. (See table 68.)

³¹ Priority has been given in this section to those industries where particularly significant developments took place during 1954. The chemical and fertilizer industries have been allotted a major share of space and attention because they are of special interest and have never been analysed in detail in previous editions of the *Economic Survey of Latin America*. The pulp and paper industry has been excluded since it forms the subject of the Appendix to Part I of this volume, pp. 321-332.

There were two main contributions to this growth of industrial activity. Firstly, production recovered in Argentina and Mexico, two countries where industrial output represents 40 per cent of the regional total; since 1951 there had been a downward movement in their industrial production, but in 1954 output exceeded the 1952 level although it did not reach the peak figures for 1951. Secondly, continued expansion took place in the industrial activity of Brazil, Colombia and Venezuela, which together constitute a further 40 per cent of the Latin American total; during 1954, these three countries showed an increase in production of 9, 17 and 10 per cent respectively in relation to the previous year.

The growth of Latin America's industrial output during 1954 was not especially the result of an expansion of industry, because the establishment of new plants, or the enlargement of existing installations did not continue at the same pace as in recent years. It should rather be attributed to a more intensive use of installed capacity. The main reason for greater production was the growth of demand, caused in turn by an increment in the *per capita* income which was not used for investment but flowed

Table 68. Latin America: Indices of industrial production

(1950=100)

	1951	1952	1953	1954	Percentage variat.on 1954 to 1953
Building industry	98.5	101.1	97.7	99.5	1.8
Manufacturing industry	107.2	111.8	112.9	122.9	8.9
Total industry	106.1	109.2	111.0	120.3	8.4
Argentina	102.5	95.0	93.0	98.0	5.4
Brazil	112.3	124.5	133.0	145.0	9.0
Chile	102.2	111.1	123.7	129.0	4.3
Colombia	99.0	111.0	121.0	141.5	16.9
Ecuador	98.5	107.5	116.5	..	..
Mexico	111.3	109.1	103.4	110.2	6.6
Peru	103.1	111.0	106.8	..	..
Venezuela	105.0	127.5	130.2	143.2	10.0

Source: Economic Commission for Latin America, based on official statistics.

mainly into consumer goods purchases. Other significant factors were the wider availability of imported raw materials and, in some of the larger countries, a more regular supply of energy.

An analysis of recent developments in the main industries shows that, although 1954 was not particularly rich in new developments, the most important took place in capital goods industries. Latin America's industry formerly produced end consumer goods almost exclusively, but during recent years its main effort has been directed towards the capital goods sector. For six countries, which together account for 90 per cent of the industrial output of Latin America, during 1950-53 consumer goods industries expanded by 6.4 per cent while capital goods industries rose by 11.8 per cent. (See table 69.)

Table 69. Latin America: Growth of consumer goods and capital goods industries in six selected countries*

(1950=100)

	1951	1952	1953
Consumer goods	105.3	103.2	106.4
Capital goods	99.0	107.2	111.8

Source: Economic Commission for Latin America, based on official statistics.

* Argentina, Brazil, Chile, Colombia, Mexico and Venezuela.

Despite this steady trend, however, the preponderance of consumer goods industries in the composition of the region's industrial activity is still very marked. (See table 70.)

A large share of the capital goods industries are included in table 70 under the sub-section entitled Metals, but capital goods industries do not represent more than 15 per cent of Latin America's aggregate industry.³²

2. Iron and steel

During 1954, the region produced 2,150,000 tons of steel ingot, that is, 18 per cent more than in 1953. (See table 71.)

³² In the United States, the manufacture of machinery (including electrically driven machinery), petrol-driven motors and other transport equipment alone represented 32 per cent of the aggregate industry in 1953.

Table 70. Latin America: Structure of industry in six selected countries* during 1953

Industry	Net value of production ^b	Percentage
Foodstuffs	1,685.0	27.6
Textiles	1,041.3	17.0
Metals	871.9	14.3
Rubber	187.3	3.1
Tobacco	186.7	3.0
Leather goods and footwear	144.6	2.4
Pulp and paper	137.5	2.3
Other manufacturing industries	801.7	13.1
TOTAL manufacturing industry	5,056.0	82.8
Building	1,053.0	17.2
TOTAL industry	6,109.0	100.0

Source: Economic Commission for Latin America, based on official statistics.

* Argentina, Brazil, Chile, Colombia, Mexico and Venezuela

^b Millions of dollars at 1950 prices.

Table 71. Latin America: Steel ingot production

(Thousands of tons)

	1951	1952	1953	1954
Argentina . . . . .	..	..	..	120*
Brazil	850	893	1,009	1,100*
Chile	178	243	313	320
Colombia	—	—	—	25*
Mexico	456	540	519	582

Source: Economic Commission for Latin America, based on direct information.

* Estimate.

During 1954, two outstanding events took place in the region's iron and steel industry. In February, a second blast furnace began to operate at Volta Redonda in Brazil, raising the annual steel output of this mill from 450 to 710 thousand tons. Secondly, during October, the plant at Paz de Río in Colombia entered production with a capacity of 122 thousand tons. Furthermore, two new electric furnaces and a greater use of the Siemens-Martin process brought Mexico's total steel capacity up to 916 thousand tons annually. At San Nicolás in Argentina the 400-thousand-ton

rolling-mill received in the course of the year was being erected, while construction was renewed of the Chimbote steel mill in Peru, which in the initial stage will have a capacity of 60 thousand tons yearly. All these events lead to the conclusion that 1954 was a year of valuable progress in this industrial sector. At present there are eight large integrated iron and steel plants situated in four of the Latin American countries. Over the period 1946-53, their production, combined with that of smaller non-integrated plants, satisfied only 30 per cent of the region's demand for rolled products. On an average, output during these years corresponded to 22 per cent of the demand in Argentina, 72 per cent in Brazil, 37 per cent in Chile and 58 per cent in Mexico. (See table 72.)

The addition to the integrated steel works already in existence of those at present being erected or in the blue print stage will represent, within the next four years, a total of fourteen integrated plants in seven countries, with an aggregate production capacity of approximately 3.5 million tons of steel annually. (See table 73.)

Nevertheless, it is improbable that this progress will cause a reduction in imports, because the very fact that steel will be available from new regional sources will either stimulate domestic transforming industries or lead to their multiplication. Such industries at present consume less steel than is utilized for construction purposes—building, railways, tubing, pylons, etc. But future consumption of Latin America's transforming industries will rise, as occurs in highly industrialized countries, where 75 per cent of all steel output is used to manufacture machinery, tools, vehicles and utensils.

3. Iron and steel transforming industries

The iron and steel transforming industries have also developed substantially during recent years, although their expansion is greatly retarded by the lack or shortage of steel from domestic sources, and the consequent dependence upon imports to cover the deficit. The sharpest upward trend in this sector was experienced in Brazil, where

Table 72. Latin America: Consumption and production of finished steel
(Thousands of tons)

	1950		1953		1954 (B)
	(A)	(B)	(A)	(B)	
<i>Latin America</i>	3,465.1	1,295.7	4,312.0	1,731.1	1,906.7
Argentina.....	909.0	240.0	930.0 ^a	305.0 ^a	..
Bolivia.....	6.0	—	5.4	—	—
Brazil.....	913.2	623.2	1,093.7	832.4	885.3 ^b
Central America.....	36.6	—	..	—	—
Chile.....	152.2	65.3	235.0	226.7	245.0
Colombia.....	161.0	4.0 ^c	270.8	4.0 ^c	25.0 ^b
Cuba.....	160.0	—	153.0	—	—
Ecuador.....	20.9	—	30.5	—	—
Mexico.....	707.0	363.2	950.0	409.0	470.4
Peru.....	60.2	—	92.0	—	—
Uruguay.....	89.3	—	68.0	—	—
Venezuela.....	247.7	—	473.6	—	—

Source: Economic Commission for Latin America, based on official statistics, direct information and data furnished by the *Compañía de Acero del Pacífico* (Chile).

Note: (A) = Consumption, (B) = Production.

^a Figures for 1952.

^b Estimate.

^c Annual average.

Table 73. Latin America: Integrated iron and steel plants

Country	Site of plant	First year of production	Annual production capacity ^a	
			1954	1958
<i>Argentina</i>	San Nicolás, Buenos Aires.....	Under construction	—	500
<i>Brazil</i>	Volta Redonda, Rio de Janeiro....	1946	710	1,000
	Monlevade y Sabará, M. G.....	1921	190	250
	Acesita, Minas Gerais.....	1944	73	125
	São Paulo.....	1942	200	400
	Belo Horizonte, M. G.....	1955	—	100
	Piassaguera, São Paulo.....	Planned	—	300
<i>Chile</i>	São Paulo.....	1934	30	..
	Huachipato, Concepción.....	1950	325	350
<i>Colombia</i>	Paz de Río, Boyacá.....	1954	122	374
<i>Mexico</i>	Monterrey, Nuevo León.....	1903	255	..
	Monclova, Coahuila.....	1944	375	..
<i>Peru</i>	Chimbote, Ancash.....	Under construction	—	60
<i>Venezuela</i>	Puerto Ordaz, Bolívar.....	Planned	—	150

Source: Economic Commission for Latin America, based on direct information.

^a In thousands of tons of steel ingot.

a relatively large number of factories produce machinery, motors, electrical apparatus, railway equipment, piping, etc., and where the industry is in a position to become almost self-sufficient in the production of petrol-driven motors. Argentina's transforming industries have also shown remarkable progress, although no substantial expansion has been recorded during the last four years. In Mexico, alongside the iron and steel industry, a series of industries using iron and steel products in their manufacturing processes have continued to develop. Since 1952, even before the Paz de Río plant entered production, greater activity has already been evident in Colombia's industry, where productive capacity, output and employment doubled during the period 1952-54. For Chile, where the 19,000 persons employed in this sector in 1946 had risen to 32,000 by 1954, industrialists are preparing to implement the Second Steel Plan, which consists of an organic and rational development of the metallurgical industry by modernizing and enlarging the existing plant, in order to diversify production and to improve the quality of the goods.

4. Cement

Latin America consumed 11.4 million tons of cement in 1954 and produced 10.6 millions, or 90 per cent of the consumption, from 75 works distributed throughout 17 countries. This industry may be classed among those which have shown the greatest progress during the last fifteen years, since capacity has trebled and has remained almost parallel with the curve of consumption. (See table 74 and chart XIX.) The substantial growth was stimulated by the rapid acceleration in public and private building during and after the Second World War. Recently, the rate of increase in production has been higher than that of consumption, so that imports have declined to a point where they represent only about a million tons per annum. Although the fifteen new works under construction in nine countries of the region, as well as the projects for enlarging existing plants, may eliminate all cement imports within a period of two to three years, this balanced situation will probably be of temporary duration only, because Latin American development programmes and the activity of the private sector will require the industry to expand even more rapidly than it has done so in the past.

5. Chemical industries

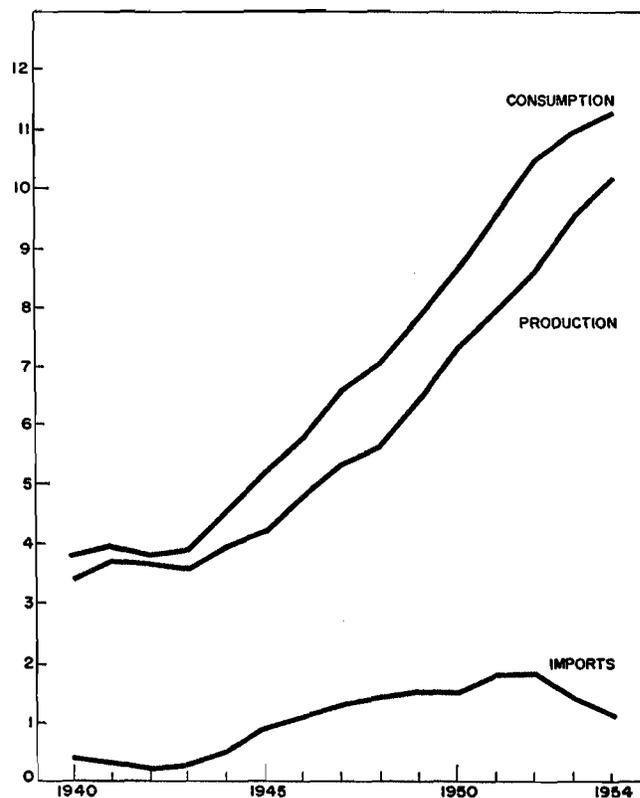
Despite its progress during recent years, the chemical industry is still in the first stages of development and is characterized by a high proportion of plants producing consumer goods, for which little manufacturing transformation is required. Nevertheless, a second stage, characterized by a heavy chemical industry, that is, the manufacture of basic products for other industries, is already evident in some of the more highly industrialized countries of Latin America. But this advance is being retarded by a number of restrictive factors. Firstly, the market for many chemical products is small and this prevents plants of an economic size from being established. Secondly, capital is scarce for the heavy investments required in this industry. Finally, in some cases, the supply of electric energy is inadequate to meet the high demand of the manufacturing process.

A homogeneous development of the chemical industry throughout the region does not at present exist. Pharma-

Chart XIX

LATIN AMERICA: APPARENT CONSUMPTION, PRODUCTION AND IMPORTS OF CEMENT

Millions of tons
(Natural scale)



ceutical products, including specifics and antibiotics, show the greatest progress; they are manufactured almost entirely from imported raw materials. A large share of the output is produced either by subsidiaries of large foreign enterprises or by local firms to which the former have given patents and technical aid.

The organic chemistry sector also progressed in the installation and expansion of plants producing plastic materials, detergents, dyes, solvents, explosives and insecticides. This branch of manufacturing was greatly stimulated by the development of the iron and steel industry, because a series of hydro-carbons essential to the output of such products are provided by the coking process.

Among the inorganic chemical products, sodium alkalis and sulphuric acid should be singled out, because of the size of their consumption and their importance for industrial activities generally.

The region as a whole depends almost entirely upon imports to meet the requirements of sodium carbonate and caustic soda. During 1954, production of the former represented 10 per cent, and of the latter about 27 per cent, of the aggregate consumption in Latin America. (See tables 75 and 76.)

Three Latin American countries—Chile, Colombia and Mexico—produce sodium carbonate, in each case by different processes. In Chile, nitrate is processed with the use of coal, while in Colombia, the Solvay method is used at the Zipaquirá plant, the first of its kind in Latin Amer-

Table 74. Latin America: Consumption and production of cement

(Thousands of tons)

	1950		1953		1954		Number of factories
	(A)	(B)	(A)	(B)	(A)	(B)	
Latin America.....	8,626	7,191	10,923	9,557	11,431	10,566	75
Argentina.....	2,016	1,558	1,660	1,659	1,945	1,709	12
Bolivia.....	38	38	37	34	37	33	1
Brazil.....	1,767	1,363	3,004	2,008	2,911	2,448	14
Chile.....	594	592	766	763	691	775	3
Colombia.....	548	567	861	869	958	962	9
Costa Rica.....	33	—	45	—	45	—	—
Cuba.....	434	316	502	405	566	420	1
Dominican Republic.....	76	73	128	128	129	160	1
Ecuador.....	67	57	92	91	113	95	1
El Salvador.....	45	—	59	27	58	—	1
Guatemala.....	53	46	73	73	67	68	1
Haiti.....	23	—	31	—	35	— ^a	—
Honduras.....	17	—	17	—	17	—	—
Mexico.....	1,370	1,388	1,674	1,672	1,767	1,765	19
Nicaragua.....	17	15	31	22	30	22	1
Panama.....	50	51	53	75	52	110	1
Paraguay.....	9	—	11	3	11	30	1
Peru.....	331	331	540	449	482	449	2
Uruguay.....	311	305	327	297	323	280	1
Venezuela.....	827	491	1,012	982	1,194	1,213	6

Source: Economic Commission for Latin America, based on official statistics and direct information.

Note: (A) = Consumption, (B) = Production.

^a A new factory began operations in 1954, but no data are available on its production.

Table 75. Latin America: Consumption and production of sodium carbonate

(Thousands of tons)

	1950		1953		1954	
	(A)	(B)	(A)	(B)	(A)	(B)
Latin America.....	190.8	11.8	202.4	15.9	223.2	22.1
Argentina.....	43.8	—	47.1	—	30.0	—
Brazil.....	60.6	—	56.4	—	106.0	—
Chile.....	10.8	9.8	9.8	9.3	12.0	11.1
Colombia.....	3.4	—	6.5	6.6	11.0	11.0
Mexico.....	55.4	2.0	61.5	—	45.2	—
Other countries.....	16.8	—	21.1	—	19.0	—

Sources: Economic Commission for Latin America, based on official statistics; for production: direct information; for imports: foreign trade yearbooks.

Note: (A) = Consumption, (B) = Production.

Table 76. Latin America: Consumption and production of caustic soda

(Thousands of tons)

	1950		1953		1954	
	(A)	(B)	(A)	(B)	(A)	(B)
Latin America.....	227.1	36.6	195.1	52.3	200.0	59.8
Argentina.....	60.7	8.7 ^a	29.0	11.1	..	12.2
Brazil.....	80.7	15.0 ^b	65.6	15.0	115.0	15.0
Chile.....	11.3	5.4	9.1	3.7	9.0	4.0
Colombia.....	10.2	0.2	9.5	7.0	12.0	10.0
Cuba.....	13.1	1.0 ^b	16.1	1.0	14.0	1.0
Ecuador.....	1.0	— ^c	1.1	— ^c	1.0	— ^c
Mexico.....	33.3	5.4	44.5	13.5	39.1	16.6
Peru.....	5.8	0.9	5.5	1.0	..	1.0
Other countries.....	11.0	—	14.7	—	..	—

Sources: Economic Commission for Latin America, based on official statistics; for production: direct information; for imports: foreign trade yearbooks.

Note: (A) = Consumption, (B) = Production.

^a Surpluses for sale only.

^b Estimate.

^c Below 100 tons.

Table 77. Latin America: Sulphuric acid production

(Thousands of tons)

	1950	1951	1952	1953	1954
<i>Latin America</i>	301.2	295.1	382.0	328.1	340.0
Argentina.....	77.2	64.5	60.4	56.6	54.0
Brazil.....	121.8	107.7	150.4	96.5	..
Chile.....	13.0	16.0	17.5	17.5	20.0
Colombia.....	6.5	6.5	6.5	8.2	8.0
Cuba.....	25.3	26.9	24.3	26.0	28.3
Mexico.....	43.4	56.7	104.5	103.9	111.1
Peru.....	10.7	12.4	13.1	13.1	15.1
Uruguay.....	3.4	4.4	5.3	6.3	6.0
Venezuela.....	—	—	—	—	5.0

Source: Economic Commission for Latin America, based on official statistics and direct information.

ica. In Mexico, the natural deposits at Lake Texcoco are used. Venezuela also possesses natural sodium carbonate deposits at Lagunillas, but to date they have been exploited in a very rudimentary and intermittent fashion. Among the remaining countries, Brazil shows the most advanced project for installing, at Cabo Frio, a second Solvay plant in the region, the cost of which will amount to approximately 12 million dollars and 180 million cruzeiros for an annual output of 100 thousand tons of sodium carbonate.

Although the region's caustic soda output rose between 1950 and 1954 by almost 64 per cent, Colombia and Mexico were almost alone responsible for the increase, since the other countries showed little increment in production. Because output is generally absorbed by the same consumers, the obstacle to expansion lies in the limited demand for chlorine, the co-product of caustic soda in the electrolytic process.

Several Latin American countries are now almost self-sufficient for supplies of sulphuric acid. Imports for the whole region do not reach 3 thousand tons annually. The growing demand for this acid, indispensable to mining activities and to the production of detergents, fertilizers, rayon, etc., has led to the establishment of new factories and to the extension of others, so that, in 1954, the region's output stood at 340 thousand tons. (See table 77.)

6. Fertilizers

Within the chemical industry, the production of fertilizers is of such outstanding importance, that this industry appears to deserve individual consideration. Latin America is attempting to raise the productivity of its land by improving its agricultural techniques, and it would be superfluous to stress the role of fertilizers in this process. As a consequence, private enterprise and industrial development organizations have channelled some of their efforts and resources into the establishment of fertilizer factories in a number of countries. Broadly speaking, although consumption has risen substantially during recent years, it is still far below either crop requirements or the consumption per hectare of more advanced countries elsewhere in the world.

(a) Nitrogenous fertilizers

Latin America is a sizable producer of such fertilizers, thanks to Chilean nitrates first and foremost, and secondly

to the guano from the islands off Peru. Together these two sources represented an average over the last five years of 96.6 per cent of Latin America's output and of 6.5 per cent of the world production of nitrogenous fertilizers. (See table 78.) In fact, during the period 1950-54, no less than 85.0 per cent of the region's output came from Chilean nitrate, and 11.6 per cent from Peruvian guano; synthetic nitrogenous fertilizers accounted for only 3.4 per cent and were constituted almost entirely by the ammonium sulphate produced at the Cuautitlán plant in Mexico.³³

The development of the petro-chemical industries in Brazil, Colombia, Mexico and Venezuela will probably result in an increase in the regional production of synthetic fertilizers during the next three years.

In the period 1950-54, Latin America produced an annual average of 295 thousand tons of nitrogenous fertilizer and consumed some 122,000 tons yearly. Consumption per cultivated hectare has shown a marked increase over the last ten years. Thus, in nine South American countries,³⁴ the figure rose from 82.1 to 188.4 kilogrammes of nitrogen per hectare annually, that is, by almost 230 per cent. (See table 79.)

(b) The position of Chilean nitrate

During the period 1946/47 to 1953/54, the average annual consumption of nitrogenous fertilizers in the region, excluding Chile, stood at 90,300 tons, comprising 23,200 of Chilean nitrate, 29,500 of Peruvian guano and 3,100 of synthetic products. The remaining 34,500 tons—38.2 per cent of the consumption in these countries—were in the form of imported fertilizers.

The nitrate sold by Chile to other Latin American countries amounted to only 10 per cent of the Chilean output. One of the reasons why Latin American countries turn to other sources of supply is that Chilean nitrate is not always the most suitable nitrogenous fertilizer for every area or every type of crop. But this is not the main reason, because the nitrate problem is fundamentally one of prices rather than markets. There is no shortage of foreign markets when Chile's output can be sold at competitive

³³ Argentina possesses a small nitrogen plant at Río Tercero, but its annual output of 800 tons is not used for fertilizers. Brazil is also a small-scale producer of ammonium sulphate obtained from the coking process at Volta Redonda.

³⁴ The exception is Bolivia, where no statistics on the area under cultivation are available.

Table 78. Latin America: Production and consumption of nitrogenous fertilizers

(Tons of nitrogen (N))

	1950/51		1951/52		1952/53		1953/54	
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
<i>Latin America</i>	108,623	304,258	131,949	285,424	136,929	306,178	145,781	281,987
Argentina.....	6,400	—	7,196	—	10,323	—	..	—
Bolivia.....	40	—	30	—	13	—	..	—
Brazil.....	12,000	800	14,768	800	12,906	834	13,000	935
Chile.....	10,938	265,554	11,848	235,832	15,576	253,356	14,180	228,221
Colombia.....	3,000	—	3,200	—	3,557	—	4,212	—
Costa Rica.....	2,859	—	3,000	—	..	—	..	—
Cuba.....	19,939	—	25,687	—	27,000	—	..	—
Dominican Republic.....	1,200	—	1,600	—	1,816	—	1,800	—
Ecuador.....	342	—	420	—	149	—	905	18
El Salvador.....	985	—	822	—	827	—	..	—
Guatemala.....	600	—	836	—	370	—	..	—
Haiti.....	218	—	56	—	8	—	18	—
Honduras.....	1,334	—	884	—	700	—	..	—
Mexico.....	11,864	6,630	20,586	13,140	16,425	13,360	23,647	13,585
Nicaragua.....	3	—	2	—	105	—	..	—
Panama.....	1,144	—	775	—	136	—	1,000	—
Paraguay.....	—	—	2	—	336	—	..	—
Peru.....	34,189	31,274	38,597	35,652	42,345	38,628	..	..
Uruguay.....	300	—	429	—	351	—	500	—
Venezuela.....	1,268	—	1,211	—	986	—	1,500	—

Sources: Economic Commission for Latin America, based on information furnished by the *Corporación de Ventas de Salitre y Yodo de Chile* and *La 45a Memoria Anual de la Compañía Administradora del Guano del Perú*, Lima, 1953; United Nations, *Statistical Yearbook*, 1952; Economic Commission for Latin America and Food and Agriculture Organization, *Report of the ECLA/FAO Joint Working Party on Agricultural Requisites in Latin America* (E/CN.12/83), Santiago, 1949; Food and Agriculture Organization, *An Annual Review of World Production and Consumption of Fertilizers, 1953*, (FAO 53/12/10483); *Ibid.*, 1954 (FAO 54/11/6284).

Note: (A) = Consumption, (B) = Production.

prices. Faced with synthetic products, the expansion of which cannot be checked or controlled through international agreements, Chilean nitrates must be produced at a lower cost. If, in treating the lixiviation water, more extensive use were made of the solar evaporation process, which allows of a higher degree of recovery and fuller utilization of the by-products, this problem might be conclusively solved, and natural nitrate would doubtless be placed in a position to compete with the synthetic nitrogenous fertilizers.

Table 79. South America:* Total annual consumption, and consumption per hectare of nitrogenous fertilizers

(Nitrogen content (N))

Year	Total (tons)	Per hectare (kilogrammes)
1944/45.....	33,998	82.1
1945/46.....	34,362	83.1
1946/47.....	47,472	111.4
1947/48.....	56,984	140.7
1948/49.....	56,995	135.7
1949/50.....	57,008	139.5
1950/51.....	68,437	157.5
1951/52.....	77,671	184.7
1952/53.....	86,529	189.1
1953/54.....	87,301	188.4

Source: Economic Commission for Latin America, based on official statistics.

* Not including Bolivia.

(c) Phosphatic fertilizers

Although the region's production of phosphatic fertilizers has displayed an upward trend during recent years, it cannot satisfy even the extremely low consumption requirements. During the last agricultural year, 1953/54, the consumption of phosphoric acid amounted to 164,800 tons, while the regional production reached only 81,200 tons, or less than 50 per cent of the needs. (See table 80.)

The Latin American countries producing chemical phosphates are Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Peru and Uruguay. If Peru with its domestic supply of guano is excluded, the remaining countries all possess plants either for grinding locally mined phosphate rock—as in the case of Chile—or for transforming phosphoric ores, mainly imported from Morocco and the United States, into superphosphates by the use of locally produced sulphuric acid.

(d) Potash fertilizers

Only two countries, Chile and Peru, produce potash fertilizers. Chile obtains them as a co-product of sodium nitrate, while, in the case of Peru, potassium is one of the components of guano.³⁵ The region's production of potash fertilizers meets barely one-third of the demand, and, during the agricultural year 1953/54, only 21,300 tons of potash were produced, in contrast to a consumption of 71,900 tons. (See table 81.)

³⁵ The guano has a 1.0-1.5 per cent content of potash.

Table 80. Latin America: Consumption and production of phosphatic fertilizers

(Thousands of tons of phosphoric acid (P₂O₆))

	1949/50		1952/53		1953/54	
	(A)	(B) ^a	(A)	(B) ^a	(A)	(B) ^a
<i>Latin America</i>	90.7	55.0	146.3	79.6	164.8	81.2
Argentina.....	6.5	5.0	4.8	4.8	4.8	4.8
Brazil.....	25.0	5.5	33.0	13.5	33.0	13.5
Chile.....	15.2	14.3	29.8	15.8	30.0	16.0
Colombia.....	3.5	0.2	9.8	0.3	11.6	0.3
Costa Rica.....	..	—	5.7	—	7.2	—
Cuba.....	10.2	5.8	20.0	5.6	29.0	5.8
Dominican Republic.....	0.2	—	1.2	—	1.2	—
Ecuador.....	..	—	0.2	0.1	1.0	0.2
El Salvador.....	0.2	—	..	—	..	—
Guatemala.....	0.8	—	..	—	..	—
Honduras.....	..	—	0.7	—	0.7	—
Mexico.....	4.3	3.1	14.3	12.6	18.8	14.6
Panama.....	..	—	0.2	—	0.2	—
Peru.....	22.8	20.8	24.5	25.9	25.2	25.0
Uruguay.....	1.5	0.3	1.5	1.0	1.5	1.0
Venezuela.....	0.5	—	0.6	—	0.6	—

Source: Economic Commission for Latin America, based on information furnished by the Food and Agriculture Organization, the *Nacional Financiera de México*, the *Corporación de Ventas del Salitre y Yodo de Chile* and the *Compañía Admini-*

stradora del Guano del Perú.

Note. (A) = Consumption, (B) = Production.

^a Does not include imported phosphate rock, unless chemically treated.

Table 81. Latin America: Consumption and production of potash fertilizers

(Thousands of tons of potash (K₂O))

	1949/50		1952/53		1953/54	
	(A)	(B)	(A)	(B)	(A)	(B)
<i>Latin America</i>	22.6	9.2	64.5	19.4	71.9	21.3
Argentina.....	—	—	1.6	—	1.6	—
Brazil.....	8.0	—	16.0	—	16.0	—
Central America.....	..	—	9.6	—	11.9	—
Chile.....	1.6	6.1	3.5	15.6	4.0	17.5
Colombia.....	—	—	8.0	—	9.5	—
Cuba.....	6.2	—	20.0	—	20.0	—
Mexico.....	0.8	—	2.4	—	5.2	—
Peru.....	6.0	3.1	2.4	3.8	2.7	3.8
Venezuela.....	..	—	1.0	—	1.0	—

Sources: Food and Agriculture Organization, *An Annual Review of World Production and Consumption of Fertilizers, 1953* (FAO 53/12/10483); *Ibid.*, 1954 (FAO 54/11/6284); *Agriculture in Latin America: its Development and Outlooks*, Washington, February 1951. *La 45a Memoria de la Compañía Administradora del Guano del Perú*, Lima 1953.

7. The textile industry

As regards the net value of production, the textile industry is second only to that of foodstuffs among Latin America's manufacturing activities. The cotton sector of the region possesses 6.6 million spindles and 197.5 thousand looms, while wool activities use 936,700 spindles and 18,900 looms, which are together sufficient to meet a large share of the demand in Latin America. (See table 82.)

After the decline during 1951-52, the recovery of the textile industry which had begun in 1953 continued during 1954; even in the absence of over-all data for the whole region in 1954, it is certain that the 1950 production level, previously regarded as the peak, was surpassed.

The strongest impulse in Latin America's textile industry was felt in the sector of rayon and acetate. From 1953

to 1954, the installed capacity for yarns of these materials increased from 86.6 thousand to 112,900 tons, that is, by 30.4 per cent. Actual production, which had stood at 24,000 tons in 1948, rose to 75,600 in 1954. In 1948, only 75.4 per cent of a Latin American consumption of 31,900 tons had been supplied by regional output, but by 1954 production covered 87 per cent of an annual consumption estimated at some 87,000 tons. (See table 83.) At present there are 24 mills producing rayon or acetate in Latin America.

A large proportion of the raw materials for this industry are imported. With the exception of Argentina and Brazil, which make use of cotton waste to supply 60 and 33 per cent respectively of the dissolving pulp they require for rayon, the remaining producer countries must import screened dissolving pulp or cellulose acetate from the

Table 82. Latin America: Spindles and looms in the cotton and wool industries

	Cotton		Wool	
	Spindles	Looms	Spindles	Looms
<i>Latin America</i>	6,562,960	197,500	936,700	18,900
Argentina.....	844,000	26,987	470,000	9,000
Brazil.....	3,328,000	100,146	89,256	4,020
Chile.....	198,000	8,026	81,100	1,320
Colombia.....	386,000	6,445	.. ^a	.. ^a
Cuba.....	71,536	1,612	.. ^a	.. ^a
Ecuador.....	54,944	1,483	4,102	91
El Salvador.....	47,000	1,156	.. ^a	.. ^a
Mexico.....	1,123,000	34,133	128,024	1,944
Paraguay.....	30,000	511	.. ^a	.. ^a
Peru.....	179,491	6,912	32,816	714
Uruguay.....	105,989	2,653	86,402	641
Venezuela.....	80,000	3,433	.. ^a	.. ^a
Other countries...	115,000	3,250	50,000	1,170

Source: Economic Commission for Latin America, based on technical publications and direct information.

^a Included in "Other countries".

United States, Canada and Europe to satisfy the growing requirements of the yarn factories. In some countries plans for producing raw materials are already in process of implementation or at the project stage. In Mexico, a plant is being built at Chihuahua for the manufacture of screened dissolving pulp from the *ponderosa* pine, and Chile has a project for a mill at Concepción. The annual capacity of the former will be 20,000 and that of the latter 6,000 tons.

8. The rubber industry

The rubber industry has developed considerably. It received a powerful impulse during the Second World War and has since continued to expand, more than 40 per cent of its requirements being met by raw rubber grown within the region.

The most remarkable development is apparent in tyre production, which is generally regarded as the heavy rubber industry. In 1939, only three countries produced tyres and 894 thousand units were delivered to the market. In

Table 83. Latin America: Consumption and production of rayon

(Tons)

	1950		1953		1954		Number of mills
	(A)	(B)	(A)	(B)	(A)	(B)	
<i>Latin America</i>	61,200	49,627	73,917	64,036	87,000 ^a	75,600 ^a	24
Argentina.....	8,094	7,970	7,913	7,904	9,440	9,210	4
Bolivia.....	195	—	230	—	..	—	—
Brazil.....	19,993	19,430	23,721	23,590	..	..	8
Central America ^b ..	163	—	85 ^c	—	..	—	—
Chile.....	2,746	2,600	4,178	3,900	..	..	2
Colombia.....	4,387	1,696	6,069	5,107	..	..	3
Cuba.....	7,821	7,495	9,699	8,876	11,113	9,733	1
Ecuador.....	421	—	274	—	..	—	—
Mexico.....	9,830	9,750	9,936	9,931	14,783	14,770	2
Peru.....	941	650	1,383	629	2,130	900	2
Uruguay.....	1,396	86	2,218	1,100	..	..	1
Venezuela.....	5,212	—	9,034	3,000	..	..	1

Source: Economic Commission for Latin America, based on official statistics, direct information, and data extracted from *Rayon Organon*.

Note: (A) = Consumption, (B) = Production.

^a Estimate.

^b Costa Rica and Guatemala only.

^c Costa Rica only.

Table 84. Latin America: Tyre production(Thousands of units)^a

	1948	1949	1950	1951	1952	1953	1954	Number of factories
<i>Latin America</i>	2,894	2,966	3,196	3,863	4,141	4,034	4,650 ^b	23 ^c
Argentina.....	862	755	687	1,012	1,063	778	788	5
Brazil.....	995	1,172	1,354	1,435	1,635	1,794	2,000 ^d	5
Chile.....	96	98	112	107	166	143	192	1
Colombia ^e	98	108	147	140	192	249	..	2
Cuba.....	59	53	86	110	94	85	104	2
Mexico.....	668	679	635	804	748	730	823	4
Peru.....	79	75	77	122	133	135	136	1
Venezuela.....	39	27	100	126	154	223	368	2

Source: Economic Commission for Latin America, based on official statistics and direct information.

^a Outer covers only.

^b Estimate.

^c Includes the factory in Uruguay mentioned in footnote 36.

^d Estimate of the *Comissão Executiva de Defesa de Borracha*.

^e Data for one factory only.

1954, nine countries were producing tyres in 23 factories, of which the annual aggregate output was estimated at 4,650 thousand units.³⁶ (See table 84.)

Despite this progress, Latin America must still import about 22 per cent of the tyres required to meet the growing consumption,³⁷ chiefly units to supply tractors, buses and other heavy vehicles.

IV. ENERGY

1. General considerations

In a large number of the Latin American countries the supply of energy is passing through a difficult phase, which is characterized by a relative over-all shortage. Although consumption in general has risen, there is still a deficit. The various reasons for this situation include the low supply levels that existed prior to the industrial and urban development of recent years, as well as the repercussions of the last war and the low yield still obtained from the energy available to consumers. Mention must also be made of the severe restriction on imports of new equipment, which affected the individual countries in different ways and with varying intensity. Electricity production suffered most, although petroleum activities also encountered serious difficulties in many countries.

Today, these difficulties have been overcome almost everywhere, but since they involved a considerable lag in the supply of energy for the region, their effects are still very marked. It is no exaggeration to say that the deficient supply of energy is one of the most urgent and acute problems at present hampering the industrial development of Latin America.

Broadly speaking, and apart from special cases, the countries of the region do possess sufficient energy resources, though in only a few instances are they plentiful or superabundant. But their systematic study is extremely behindhand, and this constitutes a factor which hinders more rapid, economic and timely development of the sources of energy available to the individual national economies.

Table 85. Latin America: Energy consumption

(Thousands of tons of petroleum equivalent)^a

	1950	Percentage	1954	Percentage
Petroleum.....	39,137	49.6	42,283	51.3
Coal and coke ^b	5,760	7.3	5,142	6.2
Vegetable fuels ^c	26,655	33.8	26,655	32.3
Hydro-electric power...	7,266	9.3	8,320 ^d	10.2
TOTAL	78,818	100.0	176,045	100.0

Source: Economic Commission for Latin America.

^a Heat value of petroleum = 10,700 calories/kilogramme.

^b Average heat value of Latin American coal = 5,550 kilocalories/kilogramme. Average heat value of coal consumed in Latin America = 6,030 kilocalories/kilogramme.

^c Calculated on the basis of official statistics and estimates for rural consumption. Because the latter is an estimate, the same figure has been used for both years.

^d Estimate.

³⁶ This figure does not include statistics for a factory in Uruguay for which no data were available.

³⁷ Expressed in units of weight.

The shortage of foreign exchange, which affects the possibilities of supplementing the lack of domestic fuels with imports, often combined with a general scarcity of financial resources, is another powerful negative factor which helps to prolong the energy crisis in Latin America. A thorough over-all examination, within the framework of the national economy, of the activities supplying energy, is of vital importance; such activities are still very backward as regards their organizational and institutional aspects, despite the progress made in a number of countries fairly recently.

In 1954 the aggregate consumption of energy in Latin America stood at 82.4 million tons of petroleum equivalent, or some 500 kilogrammes *per capita*. (See table 85.) Petroleum is the most important source of energy in the region; its share in total utilized resources is tending to grow at the expense of vegetable fuels and coal. This is an adverse factor for some producers, such as Ecuador and Peru, where production is not increasing as fast as consumption and the exportable surplus is thus declining; but this situation does not approach in gravity the problem facing those countries where the petroleum output satisfies only a fraction of consumption, which must largely be met from imports. Such is the position of Argentina, Brazil and Chile, three countries where greater consumption, if unaccompanied by a future expansion of output, might enforce a reduction of other imports, including those of capital goods, thus retarding the rate of economic development.

Latin America as a whole has the peculiar feature of being a simultaneous exporter and importer of fuels. Venezuela's petroleum wealth, combined with the output of Colombia, Ecuador, Mexico and Peru, establishes the region as an exporter. The remaining countries are importers. Argentina covers only 50 per cent of its aggregate energy requirements and 40 per cent of its petroleum needs from domestic output. Brazil³⁸ and Chile produce 70 per cent of their total energy consumption and 2 and 14 per cent respectively of the petroleum they consume. Only Colombia, Mexico and Peru produce both coal and petroleum, in fact, Colombia and Peru may eventually become fairly substantial coal exporters.

2. Electric energy

Excluding certain private power plants in some countries, which are used mainly for industrial or mining activities, the generating capacity of Latin America in 1954 was 9.5 million kW, which represented an increase of 7.3 per cent in relation to 1953. Of the total installed capacity, 43 per cent is provided by water power and 57 per cent by thermo-electric units. *Per capita* installed capacity for the region stood at the very low figure of barely 58 watts, and only Argentina, Chile and Uruguay exceeded 100 watts. (See table 86.)

Electric energy generated for the use of the public in 1953 stood at 28,040 million kWh and is estimated at 31,220 millions in 1954; this represents an increase of 11.3 and 20.0 per cent in relation to 1953 and 1952 respectively. (See table 87.) Electric energy output on a *per capita* basis may be estimated at 184 kWh in 1954.

³⁸ The contribution of domestic output drops to 45 per cent if vegetable fuels are excluded.

Table 86. Latin America: Installed capacity for generating electric power
(Thousands of kW)

	1953			1954			Per capita installed capacity 1954 (watts)
	Hydro- electric	Thermo- electric	Total *	Hydro- electric	Thermo- electric	Total	
<i>Latin America</i>	3,756.1	5,113.3	8,869.4	4,015.3	5,514.4	9,529.7	58
Argentina.....	80.0	1,789.0	1,869.0	80.0	1,805.0	1,885.0	100
Bolivia.....	73.0	34.0	107.0	73.0	34.0	107.0	35
Brazil.....	1,671.0	418.5	2,089.5	1,791.3	621.2	2,412.5	42
Chile.....	424.0	398.5	822.5	424.0	403.5	827.5	134
Colombia.....	250.6	208.0	458.6	259.6	219.9	479.5	40
Costa Rica.....	43.5	13.3	46.8	43.5	8.3	51.8	56
Cuba.....	—	464.0	464.0	—	500.0	500.0	86
Dominican Republic	—	60.0	60.0	—	60.0	60.0	26
Ecuador.....	23.1	23.3	46.4	23.1	29.8	53.0	15
El Salvador.....	12.3	27.5	39.8	27.3	27.5	54.8	26
Guatemala.....	22.6	13.7	36.3	25.8	14.4	40.2	13
Haiti.....	—	25.0	25.0	—	25.0	25.0	7
Honduras.....	3.2	11.3	14.5	3.2	11.3	14.5	9
Mexico.....	733.7	967.4	1,701.1	845.3	1,005.1	1,850.4	65
Nicaragua.....	—	21.9	21.9	—	24.9	24.9	21
Panama.....	—	30.0	30.0	—	30.0	30.0	35
Paraguay.....	—	47.0	47.0	—	47.0	47.0	32
Peru.....	221.1	110.9	332.0	221.2	110.8	332.0	36
Uruguay.....	128.0	118.0	246.0	128.0	161.7	289.7	113
Venezuela.....	70.0	342.0	412.0	70.0	375.0	445.0	80

Source: Economic Commission for Latin America.

* Several figures which appeared in the *Economic Survey for Latin America, 1953* have been corrected in the light of official data or information from more reliable sources. The marked difference to be observed in the data for Bolivia, Chile, Cuba, Paraguay and Peru arises from the fact that the new figures include the private installed capacity for industry and mining.

There can be no doubt that in each country the over-all national rate of electrification does not reflect the specific position in each area. Although the general shortage of electricity continued to be apparent, and even became more acute in some cases, so that rationing had to be maintained (Argentina, Brazil, Chile, etc.), the individual situation of each country was different. Argentina, Brazil, Chile, Colombia and almost all the countries of Central America showed a deficit for the main industrial and urban centres; in contrast, it was in the rural areas that there was a specific shortage in Bolivia, Ecuador, Mexico and Peru.

The increase in the energy generated during 1954 was achieved through new plants which hentered production, built mainly by governmental or parastatal bodies in some countries and with private investment in others.

3. Petroleum

Against the background of world oil production in 1954, the United States with 367 million cubic metres showed a decline of 2 per cent, while the output of the Middle East rose by 12 per cent, amounting to 162 million cubic metres; and Latin America's production increased by 7.2 per cent to a total of 137 million cubic metres, or 18 per cent of world output. In 1954, therefore, the downturn of Latin America's petroleum production in 1953 was reversed and the previous peak figure of 1952 was exceeded by 4.6 per cent. Of the aggregate regional production, 109 million cubic metres — or 14.3 per cent of world output — flowed from Venezuela's wells, while the remaining 28 million

cubic metres were contributed by other countries. Without exception, the region's producers showed a higher output. The relative growth was lowest in Colombia, while Bolivia, which for the first time began to export, registered the maximum relative increase.³⁹ (See table 88.)

In countries where production fails in varying degrees to meet the needs of the domestic market (Argentina, Brazil, Chile and Cuba), dependence upon external sources has increased during the last two years.

In Peru the exhaustion of the known deposits and the expansion of domestic consumption are reflected in the decline of petroleum exports. In this country active prospecting in new areas has not to date yielded satisfactory results. A similar situation exists in Ecuador, where most of the zones that it was hoped would possess petroleum wealth have already been carefully explored.

The output of refined products has continued to progress during 1954, especially in countries which produce crude oil.⁴⁰ Aggregate refining of crude increased by 7.1 per cent in 1953 in contrast with 4.8 per cent in 1952. Refining capacity grew by 10.4 per cent in 1954, raising it to 175.6 thousand cubic metres daily. This additional capacity was as follows: 6,245 cubic metres daily at the Manguinhos

³⁹ Work is in active progress on the construction of international connexions for the transport of petroleum. The pipeline from Camiri to the Argentine frontier, 450 kilometres long, has just been completed, while only small works are required before rail traffic can move from Santa Cruz to Corumba (Brazil). The agreement to begin the branch to Arica (Chile) of the Cochabamba-Uru-La Paz pipeline has been signed.

⁴⁰ In 1954 refining capacity was three times as great as in 1946, and doubled that of 1950.

Table 87. Latin America: Production of electric energy for public use

(Millions of kWh)

	1952	1953	1954
<i>Latin America</i>	25,950	28,040	31,220 ^a
Argentina.....	4,701	4,911	5,300
Bolivia.....	198	..	..
Brazil.....	9,498	10,308	11,900 ^a
Chile.....	1,870	2,100	2,265
Colombia ^b	842	962	1,087
Costa Rica.....	190	204	..
Cuba.....	775	852	919
Ecuador.....	120	132	168
El Salvador.....	93	125	..
Guatemala.....	85	90	94
Haiti.....	112	..	..
Honduras ^c	10	12	..
Mexico ^d	5,337	5,703	6,282
Nicaragua.....	46	87	..
Panama ^e	94	101	106
Paraguay ^f	37	40	45
Peru ^g	376	418	..
Uruguay.....	753	845	927
Venezuela.....	813	841	980

Source: Economic Commission for Latin America, based on official statistics.

^a Estimates.

^b Data from three power companies, covering the departments of Antioquia, Cundinamarca, Valle, Cauca, Atlántico, Magdalena and Tolima.

^c Cities of Tegucigalpa and San Pedro.

^d Includes the private sector.

^e Cities of Panama and Colón.

^f Asunción only.

^g Greater Lima only.

and Capuava plants in Brazil, 3,200 from the refinery at Concón in Chile, 1,100 from the enlargement at Barrancabermeja in Colombia, 3,180 at Atzacapotzalco and Salamanca in Mexico and 1,430 at the Talara refinery in Peru

(see note to table 89). New plants under construction and planned for the immediate future will raise the capacity by a further 53,485 cubic metres, some volume of which is already available in 1955. Refining in the region (excluding Venezuela) represents about two-thirds of the total petroleum consumption, but many countries, including the exporters, were obliged to import some refined products especially light oils.⁴¹

4. Coal

In contrast to the consumption of petroleum derivatives, that of coal continued to decline slightly during 1953-54. Output rose by 5 per cent in 1953 and remained stationary in 1954 (see tables 90 and 91). Imports fell, and were almost all absorbed by Argentina and Brazil. Brazil, Chile and Colombia continued to be the main producers, with 80 per cent of the region's aggregate output, followed by Mexico. In many countries work proceeded to ensure greater domestic production, partly in order to establish and develop the heavy iron and steel industry and other industrial activities in which the use of coal is indispensable. The success of the present studies to provide coking coal from domestic reserves in some countries may reduce the need for imports in the near future.

Finally, mention should be made of vegetable fuels, which still form a substantial proportion of aggregate energy consumption — more than 30 per cent in 1954 — although they are gradually losing their relative importance. For Latin America as a whole they still represent a larger share of the energy produced than mineral coal and hydro-electricity combined. Their importance varies from one country to another: in Mexico and Venezuela, for example, consumption of vegetable fuels stands at around 10 per cent; conversely, in Brazil they represented 75 per cent of the energy balance in 1939 and 48 per cent in 1952; in other countries the share of vegetable fuels still exceeds 50 per cent of the total.

⁴¹ Colombia, for example.

Table 88. Latin America: Petroleum production

(Thousands of cubic metres)

	1950	1951	1952	1953 ^a	1954	Percentage variations	
						1954 to 1952	1954 to 1953
<i>World production</i>	601,550	680,094	690,240	728,362	758,337	9.8	4.1
<i>Regional production</i>	110,904	124,702	130,946	128,078	137,269	4.6	7.2
Argentina.....	3,730	3,890	3,909	4,475	4,700	14.8	5.0
Bolivia.....	99	83	85	95	268	215.3	182.1
Brazil.....	49	100	109	141	151	38.5	7.0
Chile.....	100	120	144	200	276	91.7	38.0
Colombia.....	5,415	6,105	6,140	6,269	6,356	3.5	1.4
Ecuador.....	418	431	452	472	495	9.5	4.9
Mexico.....	11,746	12,525	12,545	11,780	13,514	7.2	14.7
Peru.....	2,396	2,528	2,593	2,543	2,729	5.2	7.3
Venezuela.....	86,929	98,921	104,969	102,103	108,780	3.6	6.5

Source: Economic Commission for Latin America, based on official statistics; Petroleum Press Service; and United Nations, *Monthly Bulletin of Statistics*.

^a Certain figures published in the *Economic Survey of Latin America*, 1953 have been revised in the light of final data.

Table 89. Latin America: Petroleum refining capacity
(Cubic metres per day)^a

	Installed capacity		Plant under construction or in the planning stage
	1953	1954	
<i>Latin America</i>	159,000	175,605	53,485
Argentina.....	27,350	27,400	5,700 ^b
Bolivia.....	1,730	1,730	—
Brazil.....	1,955	8,200	13,500 ^c
Chile.....	180	3,380	—
Colombia.....	5,000	6,100	3,975 ^d
Cuba.....	970	970	—
Ecuador.....	900	900	—
Mexico.....	38,720	41,900	17,970 ^e
Peru.....	6,030	7,460 ^f	—
Uruguay.....	3,975	3,975	—
Venezuela.....	72,190	73,590	12,340 ^g

(Footnotes to table 89)

Source: Economic Commission for Latin America, based on published data.

^a Crude petroleum processed; 1 barrel of petroleum = 0.159 m³.

^b The Presidente Perón and Luján de Cuyo refineries (4,500 and 1,200 m³, respectively), which entered operation in early 1955.

^c Entered operation in early 1955, with the exception of 4,760 m³ —the estimated output of the expanded Cubatão plant.

^d A new refinery in Baranquilla and extension of La Libertad.

^e A new refinery in Guaymas (30,000 barrels/day) and extension of: Ciudad Madero (20,000 barrels/day), Reynosa (3,000 barrels/day), Minatitlán (30,000 barrels/day) and Atzacotalco (30,000 barrels/day). A new refinery will also be built in Monterrey, the capacity of which is not yet known.

^f It has been considered that the 45,000 barrels/day capacity which has recently been installed in Talara, will replace the obsolete equipment of the refinery. If it were to constitute a net expansion, Peru's refining capacity would rise to 13,200 m³ daily.

^g The extension of the Amuay refinery (11,000 m³/day) entered operation while that at San Roque (1,270 m³/day) was being built

Table 90. Latin America: Coal output
(Thousands of tons)

	1950	1951	1952	1953	1954
Argentina.....	26	39	112	85	95
Brazil.....	1,956	1,968	1,961	2,030	1,968
Chile.....	2,094	1,988	2,208	2,138	2,027
Colombia.....	1,010	1,115	966	1,230	1,500
Mexico.....	912	1,104	1,317	1,432	1,308
Peru.....	196	186	225	210	200
Venezuela.....	1	28	25	29	28
TOTAL	6,195	6,428	6,814	7,154	7,126

Source: Economic Commission for Latin America, based on official statistics.

Table 91. Latin America: Apparent coal consumption
(Thousands of tons)

	1950	1951	1952	1953	1954 ^a
Argentina.....	1,473	2,203	1,852	1,259	1,893
Bolivia.....	2	12.5	12	5	..
Brazil.....	3,072	2,985	2,885	2,772	2,400
Chile.....	2,090	2,134	2,385	2,344	2,227
Colombia.....	1,010	1,117	967	1,050	1,000
Cuba.....	10	57	..	..	..
Dominican Republic.....	0.2	0.4	1.6	0.2	..
Ecuador.....	0.2	0.2	0.5	0.2	..
El Salvador.....	0.2	0.3	0.2	0.2	..
Mexico.....	913	1,105	1,344	1,468	1,338
Peru.....	139	148	187	183	160
Uruguay.....	128	139	116	81	80
Venezuela.....	2	28	26	30	28
TOTAL	8,838	9,931	9,776	9,202	9,127
Latin American output.....	6,195	6,428	6,814	7,154	7,124
Deficit covered by imports.....	2,643	3,504	2,962	2,048	2,003

Source: Economic Commission for Latin America.

^a Estimates.

Appendix

PROSPECTS FOR LATIN AMERICA'S PULP AND PAPER INDUSTRY

*Prepared by the secretariat of the Food and Agriculture
Organization of the United Nations*

Appendix

PROSPECTS FOR LATIN AMERICA'S PULP AND PAPER INDUSTRY

Latin America's forests constitute one of the region's richest resources. The area of forest per inhabitant is seventeen times that of Europe (excluding the USSR) and one and a quarter times that of North America. Yet the region has a net inflow of forest products, equivalent, in physical terms, to somewhere between 2 and 3 million cubic metres of roundwood. Since imports consist mainly of highly processed goods and exports of raw or semi-manufactured goods, the balance in terms of value is even more striking. (See table I.)

Table I. Latin American trade in forest products
(Millions of dollars)^a

	Imports	Exports	Excess imports/exports
Wood and cork.....	60.0	53.3	6.7
Pulp and waste paper.....	72.4	1.0	71.4
Wood and cork manufactures..	16.6	3.7	12.9
Paper, paperboard and manufac- tures thereof.....	119.9	1.7	118.2
TOTAL	268.9	59.7	209.2

Source: Food and Agriculture Organization.

^a Average 1952-53.

Since it is based on data for only eleven Latin American republics, although all the principal producers and consumers are included, table I under-emphasizes the region's dependence upon imports. Nevertheless two facts clearly emerge. Firstly, pulp and paper account for an overwhelming share of the region's unfavourable balance. Secondly, the region's net annual requirements of foreign exchange for pulp and paper fall not far short of 250 million dollars.

The region depends on imports for 44 per cent of all its needs for paper and board and produces, in fact, only 15 per cent of its newsprint requirements. If pulp imports are also included, the region's aggregate dependence upon imported pulp and paper stands at 72 per cent.

Nevertheless, paper consumption is not high—less than 9 kilogrammes annually per head. Only in three countries—Argentina, Cuba and Uruguay—does *per capita* consumption approach European standards. In Haiti and Paraguay it is as low as one and a half kilogrammes.

But paper consumption is rising rapidly in Latin America and there is ample evidence to show that consumption would increase even more steeply if greater indigenous supplies were available. Consumption rose from just over 600 thousand tons in 1935 to around 1,500 thousand tons in 1954. Only one-third of the increase came from greater imports, while most of the gain was made possible by a rapid upward movement in domestic production, from 230

to 630 thousand tons. Moreover studies of the relationship between *per capita* consumption and *per capita* income indicate that in many Latin American countries consumption falls below the level appropriate to the stage of economic development reached.

The sharp upswing in the demand for paper in Latin America springs from a variety of sources—increasing population, economic growth, campaigns to end illiteracy, widening participation in democratic processes, and so forth. With demand soaring, it is not surprising that both governments and industrialists have come to focus attention on the contrast between the region's fibre wealth and its ever-growing expenditure on imported pulp and paper.

At the request of Latin American governments, the appropriate organs of the United Nations have studied the possibilities for ending or mitigating this anomalous situation. A reconnaissance study of prospects in Latin America, carried out jointly by the Economic Commission for Latin America and the Food and Agriculture Organization, was published early in 1954.¹ During the last two years, no less than eleven pulp and paper survey missions have been dispatched to Latin American countries by FAO under the expanded technical assistance programme.²

This preliminary investigation set the stage for a more detailed examination of the problems involved in developing the region's pulp and paper industry. Such an examination took place, in October 1954, at a meeting of experts on the pulp and paper industry convened under the joint auspices of the Food and Agriculture Organization, the Economic Commission for Latin America, and the Technical Assistance Administration of the United Nations.

Almost 200 experts, drawn from fourteen Latin American and ten other countries, participated in the meeting which was held, at the invitation of the government of Argentina, in Buenos Aires. Seventy-two papers were submitted for the consideration of the experts; ten of these were prepared by the Secretariat and the remainder written by experts from sixteen different countries. All the papers were especially prepared for the meeting, many containing important new material, hitherto unpublished, and in some cases the results of research especially undertaken for the meeting.

Although the experts devoted considerable attention to problems of resource management and pulp and paper

¹ *Possibilities for the Development of the Pulp and Paper Industry in Latin America*, document E/CN.12/294/Rev.2 (United Nations publication, Sales No. 1953.II.G.2).

² Summaries of the reports of these survey teams are given in *World Pulp and Paper Resources and Prospects*, a survey carried out by FAO in co-operation with the secretariats of UNESCO, the Economic Commission for Europe and the Economic Commission for Latin America, New York, 1954.

technology,³ one of the outstanding features of the meeting was the sustained interest in the economic aspects of pulp and paper development and the discussion aroused by this subject. The following paragraphs briefly summarize some of the points discussed and the conclusions reached.

1. The level of future demand

Secretariat estimates of Latin America's future paper needs were based on the close correlation which exists between *per capita* paper consumption and *per capita* national income. Income elasticities for three categories of paper and board were calculated for each country and projections were made on the basis of average consumption during the period 1948-52: assumptions were formulated for the population trend in each country. Finally, for each country, two alternative assumptions were made, based on past experience and current prospects, concerning the future rate of economic growth. (The resulting estimates, for Latin America as a whole, are shown in table II.)

Table II. Estimated demand for paper in Latin America, 1960 and 1965
(Thousands of tons)

	Newsprint	Other paper and board	Total
Average consumption, 1948-52 . . .	393	939	1,332
Estimated consumption in 1960:			
Assumption A	615	1,522	2,137
Assumption B	726	1,836	2,562
Estimated consumption in 1965:			
Assumption A	770	1,933	2,703
Assumption B	985	2,561	3,546
Percentage increase over 1948-52:			
By 1960:			
Assumption A	56	62	60
Assumption B	85	96	92
By 1965:			
Assumption A	96	106	103
Assumption B	151	173	166

Source: Secretariat paper ST/ECLA/CONF.3/L.2.0, *Pulp and Paper Consumption, Production and Trade in Latin America*, presented to the Latin American Meeting of Experts on the Pulp and Paper Industry.

For Assumption A, it should be noted that a very conservative assessment was made of the growth rate for the *per capita* income that may be expected in the coming ten to fifteen years. In all cases the rates of growth assumed were far lower than the historical rates calculated from data for eight recent years. This assumption thus reflects a deliberately pessimistic view of future developments. Assumption B, on the other hand, while presupposing a generally favourable trend in development, does not correspond to the maximum which might conceivably be attained, since once again the assumed rates of growth in some cases fell below recent historical rates.

These estimates⁴ have been confirmed by investigations, official and unofficial, undertaken in several Latin American countries and also, as regards newsprint, printing and writing paper, by the independent study commissioned by

³ A full account of the reports adopted on the several items of the agenda appears in the *Report of the Latin American Meeting of Experts on the Pulp and Paper Industry* (E/CN.12/363/FAO/ETAP, No. 462, ST/TAA/SER/CM.) The Final Report, to be published later this year, will include, either in summary or *in extenso*, the papers submitted to the meeting.

UNESCO from the Intelligence Unit of *The Economist*, London.⁵ There would thus appear to be a general consensus of opinion on the magnitude of the problem which Latin America faces during the coming decade.

2. The future gap

These estimates of future requirements were compared with prospective capacity in order to arrive at an indication of the extent to which present plans for expanding capacity fall short of future needs. A very liberal interpretation of these present plans was adopted, in that all projects which are only in the current stage of preliminary study were included. The following general picture emerged. (See table III.)

Table III. Deficit of Latin American pulp and paper capacity in 1965
(Thousands of tons)

	Additional capacity required over and above that at present planned, to achieve regional self-sufficiency by 1965		
	A minimum economic growth	B favourable economic growth	Average imports 1950-52
Newsprint	575	790	355
Other paper and board . . .	660	1,285	285
Mechanical pulp	640	915	25
Chemical pulp	520	935	265

Source: Secretariat paper ST/ECLA/CONF.3/L.2.0, *Pulp and Paper Consumption, Production and Trade in Latin America*, presented to the Latin American Meeting of Experts on the Pulp and Paper Industry.

Thus, even if all present plans are realized and imports maintained at their recent level, a substantial gap will remain whichever assumption for the future rate of economic growth is adopted. There is a clear need to stimulate a more rapid expansion of the region's pulp and paper capacity than is at present contemplated.

3. The place of pulp and paper in economic programming

Most Latin American governments seek to ensure an ordered economic development by planning public investment and by influencing, in various ways, the channelling of private investment. Several governments already accord a high priority to investment in pulp and paper. The experts at the Buenos Aires meeting considered the claims of this industry for special consideration. These they enumerated as follows:

(a) Adequate levels of paper consumption form an essential part of reasonable living standards; economic advancement, improved welfare, educational and cultural progress all call for more paper.

(b) A new pulp and paper mill may in two years, or in certain cases even less, furnish a volume of paper for which the foreign currency requirements, were that paper to be imported, might even exceed the foreign exchange usually needed to establish the mill; in other words, pulp

⁴ The estimates for each country, and the various assumptions on which these estimates were based, will appear in the Final Report of the Buenos Aires meeting.

⁵ *Paper for Printing and Writing: Tentative Forecasts of Demand in 1955, 1960 and 1965*, by the Intelligence Unit of *The Economist*, at the request of UNESCO. Paper presented to the Latin American Meeting of Experts on the Pulp and Paper Industry.

and paper investment based on local raw materials has a high import saving value.

(c) An expansion in the domestic paper supply permits the development of new paper converting industries, which are valuable and generate employment.

(d) By investing in pulp and paper the region will be able to mobilize a variety of important indigenous resources, including non-wood fibres such as straw and bagasse.

(e) Investment in this field will enable a range of industries to be developed which utilize the co-products and by-products of the paper industry, notably the chemical industry.

(f) Pulp and paper investment can facilitate the establishment of other forest industries; in fact, an industrial development of this kind alone can ensure the economic utilization of the great potential resources in Latin America's forests.

It is noteworthy that this appraisal received unanimous endorsement by the experts, whose numbers included many not directly connected with the pulp and paper industry, for example, officers of central and development banks.

4. *Pulp and paper manufacture from tropical and sub-tropical hardwoods*

Tropical and sub-tropical forests constitute Latin America's greatest single resource of fibre. Hitherto they have not been used for pulp and paper. The forms of exploitation so far practised in these areas have not succeeded in opening them up for settlement on any significant scale. Exploitation for pulp and paper could provide the key to unlock this immense storehouse of wealth. The new technical problems posed by such a development are capable of solution and it may be said that a solution to the economic problems involved is also being approached.

This question was examined by the experts at length, drawing on past experience in other regions and on the investment and cost estimates prepared by the secretariat for hypothetical mills located in the Amazon (Amapa region) and in the Yucatan peninsula of Mexico.

Over-all investment costs, including those of forest extraction scheme, of the establishment of community facilities, and of the mill itself, tend to be higher in undeveloped areas than in the industrial centres. Site selection is a crucial factor. For any tropical mill project, certain "settlement" costs will be incurred; in a remote site these may be so high as to render any project prohibitive. A long-term view will take into account that for an undeveloped area the burden of "settlement" capital declines after an initial period, while the differences in costs determined by environment (as compared with a project in a developed area) will tend to diminish. Thus if it is deemed in the national interest that a new project be established in an undeveloped area, there is a strong case for the provision of basic community services by public authorities.

As regards production costs, while capital charges will be higher, certain other costs, such as that of pulpwood and wages, will be lower. The meeting reached the conclusion, after perhaps the most exhaustive discussion of the economic aspects of exploiting tropical forests for pulp and paper yet held, that, provided the site is correctly chosen, it is possible to convert tropical woods into satis-

factory paper at competitive prices in domestic or regional markets.

5. *Bagasse procurement problems*

Less than one and a half per cent of the 26 million tons of fresh bagasse, produced annually in Latin America, is at present being pulped, because almost all bagasse currently produced is used as fuel in the sugar grinding process. An increase in the supply available for pulping can be achieved in one of two ways: by raising thermal efficiency in the sugar cane mills or by converting the mills to operate on some fuel other than bagasse. In either case, grinding being a seasonal process, an all-the-year-round supply for pulp mills raises problems of baling, handling and storage although these problems are not formidable.

The capital cost of conversion to the use of fuel oil is relatively low. The dominant element in the cost of bagasse for a pulp mill is that of the alternative fuel itself. Hence any further development of bagasse pulping largely depends on the availability of cheap alternative fuel. Although bagasse can make a limited but significant contribution to the solution of the region's pulp and paper problem, in certain countries where other fibre resources are lacking, its contribution may be decisive.

6. *Capital requirements*

To achieve a reasonable level of paper production by 1965 the new investment required represents between 50 and 90 million dollars annually, depending upon the hypothesis of economic growth adopted. These figures need not be regarded as unattainable since even the higher figure corresponds to only one and a half per cent of Latin America's average annual investment during the post-war period. Although about half the required investment would be in the form of foreign exchange, this figure represents only one half of one per cent of the region's foreign exchange earnings.

Furthermore there is no reason to believe that capital will be reluctant to enter this field, provided that the projects advanced can be shown to be planned on a sound basis. There is every indication that well-placed investment will prove profitable. New sources of foreign public capital are becoming available and an increasing interest on the part of foreign private capital is evident. In this sphere there is an increasing and desirable trend toward establishing joint enterprises. Nevertheless, domestic capital must set the pace.

Investment in machinery normally amounts to about one half the total investment, so that the establishment of a plant requires a fairly large share of foreign exchange. The possibilities for obtaining certain parts of the equipment from domestic sources deserve careful consideration, so that the proportion of foreign exchange can be reduced. Hitherto, the most important source of financing Latin American pulp and paper development has consisted of medium-term credit offered by the countries supplying machinery. This source of credit may be expected to continue and even grow in importance. The present trend towards a more general credit policy, and therefore towards a reduction of the importance of payment facilities as a means of competition, will enable importing countries to exercise a wider range of choice for their purchases.

If capital is to be attracted, however, the projects submitted for consideration must satisfy certain rigid criteria,

although in the past they have not always done so. Moreover, there is evidence that on occasions in the past capital eager to invest in the industry has failed to ask the right questions, so that plants were established which did not prove capable of permanent operation on an economic basis.

Complete technical and economic studies should cover every aspect of future operations, including marketing. The time required to complete this research may run into several years if intensive studies are needed to establish the adequacy of the raw material supplies. The group intending to operate the project must be prepared to finance the heavy expenses involved in this indispensable preliminary work. The results of these investigations must be presented to the financing agencies in the form they usually require. Only thus can the danger of misinvestment be reduced and the flow of capital for practicable projects be assured.

7. Regional aspects

Although much is known about the region's fibre resources on a broad basis, detailed information at present available in most of the countries is still very scanty. Detailed inventories, capable of providing the type of qualitative and quantitative information essential to the appraisal of prospects for specific pulp and paper projects, exist for only a few areas. Forestry services are understaffed and there is a great lack of trained personnel for managerial and supervisory positions. A similar shortage exists in the field of pulp and paper technology.

Current research programmes in various countries must be intensified, their sphere extended, and the results given wider dissemination. Common problems abound, but the machinery for co-operative solution is lacking. As an example, one of the region's important resources lies in its plantations of both indigenous and exotic species. Much experience has been accumulated and a good deal is known about the species suitable for particular habitats, the rates of growth, and methods of culture. This information should be exchanged and analysed for the benefit of all. Systematic research into such matters as establishment and maintenance costs, as well as the final cost of the pulpwood crop, should also be undertaken. Several Latin American countries must look mainly to the development of plantations for the raw material to supply their pulp and paper industries; others will need to supplement their natural stands by afforestation. The need for regional co-operation and programming of research and training activities, in this and other fields, is clear.

Examination of the resources of neighbouring countries reveals, in several cases, that they are complementary, for example in their fibre qualities and hence in their suitability for producing different grades of pulp or paper. It is logical to suppose that where resources are comple-

mentary, co-ordinated development can yield mutual advantages.

In many Latin American countries, the domestic market for particular grades of pulp or paper is still too small to support mills of an economic size. Two of the Latin American republics have a population of less than one million, while ten others are populated by under three and a half million inhabitants. The minimum economic size for a new mill is not easy to establish since it relies upon a variety of both technical and economic factors. In particular, it will depend on the production programme planned. Nevertheless it is clear that soundly based development is likely to be facilitated if regional markets, and not merely domestic markets, can be envisaged by those considering new projects.

These two facts—the complementary nature of resources in neighbouring countries and the reduced size of certain domestic markets—suggest that, in the interests of balanced industrial development, it is desirable to consider the future development of the pulp and paper industry in Latin America as a regional problem, and not as a series of unrelated national problems.

Thus the evolution of Latin America's pulp and paper industry over the next decade will provide a number of opportunities for international co-operation, for co-ordination of effort and for mutual aid at all levels.

8. Conclusion

This brief summary is planned to illustrate the range and quality of the discussions at the Buenos Aires meeting. The studies and research conducted during the last three years, culminating in this meeting, have thus set out in plain terms the nature of Latin America's pulp and paper problem, in both its quantitative and qualitative aspects. Much of the data essential for further progress can now be regarded as firmly established, while the lines for future investigation have been clearly traced. In this sense the Buenos Aires meeting may well prove to be a landmark in the evolution of the region's pulp and paper industries. The very nature of the problem makes it inevitable that few spectacular developments can be expected in the immediate future. Existing plans must be deliberately re-appraised and new projects very carefully scrutinized from the angles of suitability and continuity of supply of the raw materials, selection of site with special reference to the availability of other production factors, production programme, processing techniques and equipment, marketing possibilities, production costs, and means of financing.

The general prospects are extremely favourable and it may be anticipated with confidence that, during the course of the next decade, the contribution of domestic industry will advance rapidly towards ensuring levels of paper consumption consistent with the region's social, economic and cultural progress.

Part II

ANALYSIS BY COUNTRIES

Chapter I

ARGENTINA

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. Gross income and investment

An appreciation of the somewhat indefinite trends visible in various aspects of Argentina's economy during 1954 leads to the conclusion that this was a year of transition. On the one hand there were symptoms of a continuance of the preceding year's inertia and even of certain previous depressive trends. On the other hand, some inflationary features appeared, especially during the first half of the year, and gave rise to expectations of expansion which found expression in greater manufacturing activity and in higher quotations on the stock exchange, where these price increases were at times extremely sharp.

If there were signs of renewed vigour in industry, agricultural production, in contrast, was lower than in 1953, its decline being aggravated by a sharp deterioration in the terms of trade. Hence gross income rose by only 0.4 per cent, or less than the gross product, while *per capita* income fell by 1.2 per cent.

Aggregate investments, as well as their relation to income, remained virtually at the level to which they had previously fallen, thus prolonging the downward trend which had begun three years before. Imports of capital goods, however, though their quantum has not so far equalled that of 1951-52, recovered to the extent of absorbing more than half the increase in aggregate imports, no doubt because replacement needs were still outstanding. Since investment was stationary, greater imports of capital goods led to a substantial rise in their coefficient in relation to investment.

The year's most important contribution to the increment in the gross product was made by industry. Thanks to a more intensive utilization of existing capacity, this sector also attained the highest productivity per unit of capital and per worker, without, however, reaching the 1950 and 1951 levels.

The increase of 3 per cent in available goods may be attributed both to the larger gross product and to the expansion of the import quantum, which was far more marked than that of exports.

The year 1954 saw no recurrence of the conditions which had brought about an increment of 6 per cent in gross income during 1953. This recovery had been exclusively the result of the high level of agricultural production, which, following the sharp downturn in the preceding year, had checked the deterioration in the terms of trade.

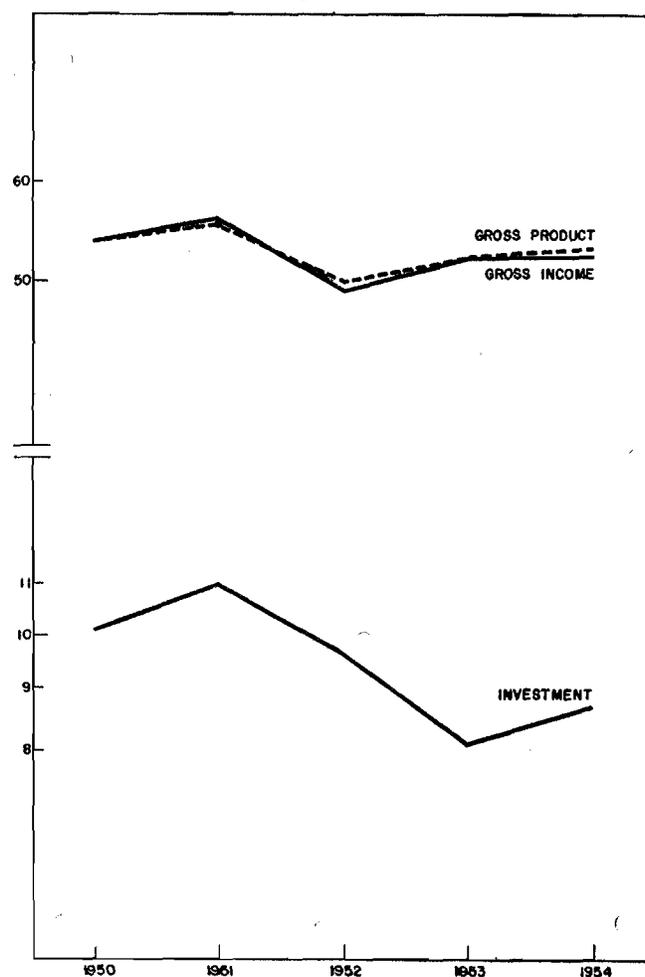
The influence of the depression in 1952, which had been linked with poor harvests and the anti-inflationary policy, continued to be felt in 1953, since it affected both investment and income and had also been accompanied by very low levels of productivity per unit of capital and per worker. Although more liberal credit facilities strength-

ened activities in general at the end of 1953 and an improvement in both agriculture and foreign accounts took place, domestic demand apparently lacked the vigour required to support the incipient process of recovery. The outlook in early 1954 was not, therefore, promising. The over-all rise in wages decreed in May, after a relatively long stationary period, and public investment expenditure on the Second Five-Year Plan, provided a new stimulus which was primarily reflected in industrial output through a more intensive use of existing capacity. In the remaining sectors development was uneven. Some expansion took place in private building and in other activities, but agriculture, which in countries like Argentina is a dynamic agent of the first importance, was unable to reach the

Chart XX

ARGENTINA: INCOME AND INVESTMENT

Thousand million pesos at 1950 prices
(Semi-logarithmic scale)



previous year's level. The balance-of-payments situation was also less favourable, owing to the two-fold effect of the reduction in export values and the need for greater imports to meet the deferred demand caused by restrictions in 1952-53.

All the above circumstances justify the consideration of 1954 as a year of transition. In many respects, trends are still uncertain. For example, as regards the distribution of income and its influence on demand, higher wages have led to price increases, which have already neutralized some of the improvement. Greater industrial activity and the increase in nominal income began to exert pressure on the balance of payments from mid-1954, and the result at the close of the year was in contrast with the position in 1953. On the other hand, a factor appeared which may decisively influence both the immediate future and the long-term development of Argentina's economy, namely foreign investment in basic industrial sectors, which the Government is encouraging through the legislation voted in 1953. Approval has already been given to several specific projects due to begin between 1955 and 1956; they include the establishment of various factories which should enter production relatively soon. Such investments may mean that industrialization can recover its former pace, with less pressure on the balance of payments and fewer risks of inflation.

2. The balance of payments and foreign trade

(a) The balance of payments

Although only preliminary figures are available, it is clear that there was a change of trend in Argentina's balance of payments. The pronounced recovery in 1953 lasted only until mid-1954; from that date a deterioration set in, and by the close of the year the favourable balance had fallen to about 80 million dollars, as against 354 millions in the previous year. A slight decline in the capacity to import reduced it to a lower level than in any preceding year, with the exception of 1952. It has, in fact, remained virtually stationary since 1947, when the peak post-war level was recorded.

The change was brought about by the evolution of the principal items in the balance of payments, which in greater or in less degree operated in the same direction. In the first place, an outstanding influence was exercised by the figures for foreign trade. While the current value of exports fell by 9 per cent, that of imports rose in the same measure, so that the favourable balance amounted to only 130 million dollars, as compared with about 300 millions in 1953. Accounts with the dollar area were still more unfavourable, especially in the case of the United States, a country with which the trade balance closed with a deficit, after the considerable surplus registered in 1953. If payments to the United States for freight charges and remittance of profits and other services were added, this deficit would amount to some 40 million dollars.¹

Capital receipts diminished and a provisional estimate suggests that the net balance in this account, after remittances are deducted, probably dropped to about 27 million dollars as against 40 millions in 1953.

¹ These estimates are based on official data from United States sources. According to provisional balance-of-payment figures from official Argentine sources, a surplus existed with the other convertible-currency countries.

As regards the services account, the only available information refers to Argentina's merchant shipping fleet, whose role in the country's trade has been declining in recent years. No modification of this trend appears to have occurred in 1954.

The modest surplus in the balance of payments was not reflected in the gold and foreign exchange reserves of the *Banco Central*; on the contrary, these net reserves would appear to have declined by approximately 14 million dollars. This difference, which more or less coincides with the "errors and omissions" figure in the balance sheet, probably corresponds in part to outstanding arrears in bilateral payments accounts.²

(b) Foreign trade

The fall in export prices and the consequent deterioration in the terms of trade; the increase in imports; and changes in the direction of trade, constituted the outstanding features of Argentina's foreign trade in 1954.

(i) *The export quantum.* Despite lower prices and the decline in agricultural production, Argentina's export quantum was over 3 per cent higher than in 1953. Unsold surpluses from the previous harvest were responsible for this result. Losses arising from the prices fixed to encourage farmers were borne by the *Instituto Argentino de Promoción del Intercambio* (IAPI), an official body responsible for purchasing the harvests at minimum guarantee prices and for their sale abroad.³ By the close of the agricultural year 1953/54, the sale of 98 and 94 per cent of the surplus stocks of wheat and maize respectively had been successfully negotiated. An important factor, especially for wheat sales, was the policy of bilateral agreements, which gave Argentina greater liberty on the world market than the signatories of the International Wheat Agreement, who were reluctant to sell at the established minimum price.

The greater export quantum was almost entirely due to cereal sales. Wheat exports increased by 16 per cent and those of maize, oats and rye by over 100 per cent, thus offsetting the downward trend registered in wool, cotton, quebracho extract, hides and other less important exports. The most serious situation existed for wool, where the decrease reached 38 per cent for greasy and 42 per cent for washed wool; it mainly arose from domestic prices being higher than those on the international market.

Some changes occurred in the composition of meat exports—less frozen meat and more chilled beef were exported—but the aggregate was slightly higher than in 1953.

(ii) *The import quantum.* Argentina's imports increased by as much as 19 per cent in relation to the previous year, despite the fall in the capacity to import and the fact that no major relaxation of restrictions took place.

Apart from the recovery in capital goods imports, which returned to the previous relative level (approximately 40 per cent), no pronounced changes took place in the composition of imports. The proportional distribution of the imports of consumer goods, raw materials and fuels has

² No information is available either on these payments or on any other operations which might explain the discrepancy.

³ Such losses are of very relative importance if profits on exchange rate margin are taken into account.

remained practically unmodified during the last three years.

(iii) *The terms of trade.* The index of aggregate export prices fell by 10 per cent. It was in the wheat market that the sharpest decline was recorded, but quotations for cattle hides, linseed oil, quebracho and other less important products were also lower. Import prices, on the other hand, rose by 1.6 per cent, and the deterioration in the terms of trade thus reached 11.5 per cent.

(iv) *The direction of trade.* Statistics for the first eight months of 1954 show that the tendency towards less trade with the United States and Canada and more with the countries of Western and Eastern Europe has become stronger.

Trade with the United States decreased considerably. Argentina's exports to that country dropped from 22.5 per cent of the total during the first eight months of 1953 to 15 per cent over the same period in 1954. Simultaneously, imports from the United States fell from 17.2 to 12.5 per cent.

Western Europe's share in Argentine exports almost reached 50 per cent, while imports from that source stood at about 40 per cent. But the most noteworthy changes took place in trade with the USSR and Eastern Europe. In eight months, Argentina's exports to these countries rose to seven times their former quantum, attaining a value of 500 million pesos, of which the USSR accounted for 300 millions. On the other hand, five times as much merchandise was imported as before, the value exceeding 300 million pesos. The share of this foreign trade in Argentina's aggregate commerce rose from 1.4 to 11.1 per cent for exports and from 1.9 to 7.2 per cent for imports.

Argentina's trade with the rest of Latin America underwent one of its habitual variations. Exports fell by 25 per cent and imports rose in the same proportion. This was largely because Brazil bought fewer Argentine products and Argentina imported more from Brazil.

3. *The monetary situation*

The trends prevailing in 1953 continued into the early months of 1954, but later, especially in the second half-year, changes in the situation became clearly apparent.

It should be recalled that at the close of 1952 Argentina had succeeded in checking inflation by freezing wages and prices and by restricting bank credit. For this reason, despite the considerable increase in the money supply caused by the increment in international reserves and by the operations of IAPI, prices had remained stable in 1953. Greater agricultural production helped to preserve this stability, which, moreover, was little affected by the relaxation of credit restrictions in September.

The first signs of higher prices became evident in June 1954. From that date onwards there was an unequivocal upward movement, and by December the cost-of-living index had reached 217 as against 194 in March (1950 is the base year). Even so, the expansion seems moderate when compared with the increase of 21 per cent in the money supply during the year. In contrast with events in 1953, and, to a lesser degree, during the first quarter of 1954, this increment, instead of arising from the combined action of external and internal factors, was almost exclusively the result of internal forces, foremost being the larger credits available to the private sector and to IAPI.

The more liberal loans granted to industry and agriculture were intended to counteract the difficulties created by the previous limitations and to encourage investment. But they were also vitally necessary to enable many enterprises to finance the general wage increase decreed in May and June, which was undoubtedly the decisive element in this fresh process of expansion.

Nominal wages rose by an average of 15 to 20 per cent and represented an improvement in real wages, which, after suffering a serious decline, were now stabilized. In spite of larger sales, not every enterprise was capable of financing this increase in costs from its own resources, so that, in addition to credit facilities, controlled prices had to be readjusted.

Against these expansionist forces, others of less intensity—the increase in private saving and the behaviour of public finances—exerted an opposing influence.

Notwithstanding the rise in their nominal value, savings at constant prices in banks and in Post Office accounts had steadily decreased in value in recent years, until 1952. In 1953, a real increment of 14 per cent took place, and in the first six months of 1954 a 15 per cent increase was registered, which implied a substantial absorption of the money supply. To encourage saving, the Government set up a special mechanism whereby the Instituto Mixto de Inversiones Mobiliarias was authorized to accept savings in the form of sight drafts, on which a minimum interest rate of 3 per cent was payable. Since the Institute invests these deposits in securities, the interest paid to depositors might amount to as much as 6 per cent, according to the profits accruing from such investments. The success achieved during the early months of this plan led the authorities to raise the maximum aggregate deposit that the Institute can accept from 50 to 100 million pesos. The minimum for any one savings account is 500 pesos and the maximum 100 thousand pesos. This plan has two important aspects. Firstly, it directs small and medium savings towards public or private investment, while simultaneously providing the public with a savings instrument to replace the now obsolete mortgage certificates. Secondly, it enables the Institute to fulfil its function of controlling the bond market by non-inflationary methods.

To encourage investment through the money market and to enable enterprises to consolidate some of their bank debts, a project is under consideration for the modification of stock exchange procedure, so that gilt-edged securities can be negotiated and investors protected by a system of information and control.

Fiscal policy in 1954 was characterized by stability in public expenditure, which would be financed out of regular income. The budget of the national Government stood at 12,164 million pesos, which with the inclusion of provincial and municipal authorities would amount to 15,997 millions. Projected economy measures suggest that a surplus similar to that of 1953 (47.1 millions) may be expected.

The growth of the national debt, from which public works and other investments are financed, had no inflationary effects. From the monetary standpoint, and particularly with respect to its influence upon the course of inflation, it is not so much the public debt itself as its utilization which is of interest. In 1954, as in the previous year, the public sector's acquisitions were very small (4 per cent),

those of the banks comparatively modest (17 per cent) and the majority (about 75 per cent)⁴ were made by social security funds and institutes.

In recent years only a small proportion of public bonds has been absorbed by the banks, so that the debt has principally lain in social security institutes, the funds of which constitute community savings. Argentina's budget contains no breakdown of expenditure by current expenses and financing, but almost all investment seems to have been financed either as indicated above or out of receipts accruing from profit-earning public works. It may thus be estimated that in 1954 almost the entire receipts of the bond sales of the public debt—which stood at 7,685 million pesos—were used for investments envisaged in the regular budget and the Second Five-Year Plan. A recent law (No. 14,376) authorized the Government to increase expenditure on the Plan by 20 per cent, in view of the rise in costs.

Moreover, bank credits to the Government remained stable and the larger investments in the public sector were almost exclusively accounted for by loans to IAPI in the first quarter of the year. The evolution of these loans⁵ is bound up not so much with public finance as with such factors as world and domestic price levels and the policy adopted for foreign exchange and trade.

Argentina's public finance in 1954, which was very similar to that of 1953, reveals certain characteristics deserving of emphasis. During the last two years there was no substantial increase in the regular State budget, which, since it remained stationary, tended to represent a smaller proportion of national income.⁶ Moreover, its financing depends almost entirely upon taxation, and, to a growing extent, upon income tax. Approval was recently given to fiscal reform aiming at a more equitable distribution of the burden of taxation without detriment to investment and embodying the following basic provisions: (1) an increase in the tax-free minimum and in deductions for dependants; (2) a modification of the progressive scale of super-tax; (3) abolition of the sales tax on certain food-stuffs; (4) a five-year reduction of the property tax on houses occupied by their owners; (5) reduction of the tax on possible profits, taking into consideration the rise in prices caused by inflation; and (6) extension of the system of extraordinary amortization on items in the fixed assets of enterprises.

The Second Five-Year Plan is, to some extent, an estimate of investment. The method of prior financing through public credit did not imply the creation of an additional money supply for the Government, but rather a transfer to the Government of liquid resources accruing from employers' and employees' contributions to social security funds. Nor is there any question of an increase in saving, but instead existing savings are applied to official investment plans. At first sight they do not seem to have any more pronounced expansionist effects than the invest-

⁴ *Banco Central de la República Argentina, Memoria 1954.*

⁵ The fact that in April 1954 they represented approximately 22 per cent of all credits in the banking system shows their importance in the creation of the money supply during recent years.

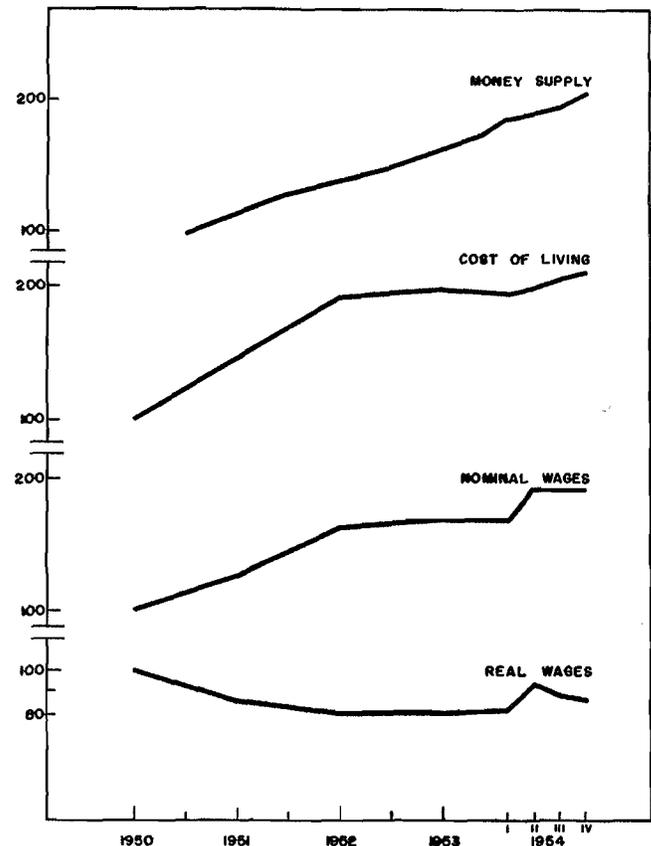
⁶ The inclusion of provincial and municipal budgets substantially raises the fiscal sector's share of gross income, but does not alter the general trend.

Chart XXI

ARGENTINA: INDICES OF THE MONEY SUPPLY, COST OF LIVING AND WAGES

1950=100

(Semi-logarithmic scale)



ments into which social security institutions normally channel their funds.

These circumstances all appear to confirm the moderating role of public finance during the last two years, which was in marked contrast to its behaviour in the preceding period, when it made a substantial contribution to the development of inflation. Nevertheless, any assessment of the probable monetary evolution of Argentina cannot disregard the magnitude of aggregate public expenditure. In addition to the regular State budget, there are those of decentralized organizations, such as provinces and municipalities, and the investments projected for the Second Five-Year Plan, all of which coincide with other expansionist factors in the private sector, such as more generous credit facilities and higher wages, at a time when production is almost stationary. It might also be asked how far social security institutions can continue to absorb national debt bonds. There seems some likelihood of a pressure of demand on the supply of domestic goods and resources, with its inevitable inflationary consequences. Further, an increase in imports—which is considered indispensable, especially in the case of capital goods—would again cause balance-of-payments problems if there were no corresponding increase in exports or an inflow of foreign capital. Continuing its previous policy, the Government has encouraged exports by means of price measures and an improvement in exchange rates, but for the moment

there is little prospect of greater sales abroad. As regards foreign capital, a number of substantial projects are in view, the realization of which would represent an inflow of capital goods. In January 1955, the Government extended the treatment established in August 1953, for new capital, to "old" capital invested in industry and mining.

II. BRANCHES OF PRODUCTION

1. Agriculture

In 1953/54, Government intervention in the agricultural sector was characterized by an intensive development policy. The guarantee prices for major products, in most cases higher than world quotations, continued in force; efforts were made to exceed the high production levels attained in 1952/53, by means of greater mechanization, the selection and distribution of seeds and strains, improvements in storage and marketing, more liberal credit facilities and other measures.

The year's results, however, did not fulfil the expectations which such incentives appeared to justify. In fact, agricultural production was 5.4 per cent lower than in the preceding year, and remained at virtually the same level as in 1947/48. Livestock production decreased by 3.4 per cent in relation to 1952/53, reaching its lowest level during the last seven years.

The authorities were faced with various problems which arose in the course of the year and which, in most cases, represented a continuation of trends already manifest at an earlier date.

For example, the fall in world prices for certain staple export items during the previous year limited such shipments. Moreover, the huge surpluses accumulated in other countries—especially Australia, Canada and the United States—aroused anxiety as to Argentina's exports. Nevertheless, the whole of the 1953/54 harvest was sold without difficulty, and even some part of the 1954/55 wheat harvest⁷ was ordered, although in certain cases the agreed prices were lower than those fixed under the terms of the International Wheat Agreement. Bilateral pacts, including those signed with certain countries of Eastern Europe, enabled Argentina to export substantial tonnages to markets outside its traditional trade channels. Broadly speaking, agricultural products—with the exception of wool—were sold without serious difficulty.

Argentina's agricultural balance-sheet reveals a pause in the recovery that took place during 1952/53, when the peak production for the last five years was recorded, thanks to good weather and to energetic development measures on the part of the Government.

(a) Crops

In contrast to the exceptionally good climatic conditions which had prevailed during the preceding period, the weather during 1953/54 was unfavourable for some major branches of production. The difference was reflected both in the area under cultivation and in the smaller crops and yields. Even so, production was higher than in any other year since 1949/50 with the exception of 1952/53.

The items most affected by the weather were cereals—with the exception of rice and maize—and, to a lesser degree, oleaginous products, fruit, stimulants and wines. This decline was too pronounced to be offset by better crops of potatoes, pulses, sugar-cane, vegetables and fibres.

Wheat was among the cereals that suffered the most adverse effects, and, despite the larger area sown, the harvest of 6.2 million tons represented a fall of 18.8 per cent. Rye production, for the same reason, dropped more steeply from 1.3 million to 0.6 million tons. Maize, on the other hand, rose to 4.45 million tons, thus achieving a substantial recovery (25.4 per cent); the same was true of rice, for which Argentina's record crop was attained (213 thousand tons).

The critical situation of the sunflower-seed crop in recent years, brought about by competition from maize and by the appearance of cryptogamic diseases, became more acute in 1953/54, when the area under seed was only 570 thousand hectares, that is, 30 per cent less than in 1953 and 68 per cent less than in 1948, when the maximum area was sown. Yields also registered a progressive decline, and the 1953/54 production was 344.8 thousand tons as against 428.3 thousand in 1952/53 and 1,088 thousand in 1948/49.

This situation exposed the edible oil industry to a grave risk of being partially paralysed for lack of raw materials. The authorities carried out an intensive campaign to persuade farmers to extend their sowings, raising the official price by 25 per cent, while pegging that of maize at its previous level. Moreover, IAPI undertook full responsibility for the purchase of the harvest and its distribution to manufacturers, in order to prevent speculation. Exports of peanut, cotton-seed and turnip oils were suspended, so that these products could be used for mixing with sunflower-seed oil.

The comparable situation that arose for linseed, where both production and the area under seed declined considerably, aroused similar anxiety, and it was decided to raise the price of the 1954/55 harvest. Production stood at 410 thousand tons, as against 584 thousand in the preceding year and 901 thousand in 1947/48. Linseed's competitor for land utilization is wheat, and although the relative prices of these two products have not varied, the former was placed at a disadvantage by its lower yield, whereas there was an increase in that of the latter.

The expansion of sugar-cane cultivation during the last few years became more pronounced, and production constituted a record (9.8 million tons against 9.6 millions in 1952/53). The processing of sugar similarly developed, so that the 737 thousand tons produced by the mills provided a small exportable surplus.

Cotton cultivation increased so rapidly that 135.8 thousand tons of fibre were produced, or 8.5 per cent more than in 1952/53; fairly substantial stocks for export thus remained after the domestic demand had been met.

(b) Livestock

Since stock-breeding had not shared in the preceding period's prosperity, the fall of 3.4 per cent in 1954 was more significant than the decline in crop production. The slaughter of 8.1 million head of cattle represented a rise of 2 per cent in relation to 1952/53, but it was still well below the average of 9 millions during the last five years.

⁷ Owing to the drought at the end of the farm year, which affected the fodder crop, the Government prohibited maize exports in January 1955.

There was a reduction in sales and slaughter of young animals, which may be interpreted as the beginning of a renewal of stocks.

The number of sheep slaughtered stood at 10.65 million head, an increase of 4.7 per cent, while the slaughter of pigs dropped by 42.3 per cent and thus fell to its lowest level since 1927.

The inadequate development of stock-breeding was accompanied by a slight upswing in meat consumption, which in the two preceding years had remained stationary at levels lower than those of the three-year period 1949-51. Exportable surpluses thus decreased still further, while, simultaneously, there were serious difficulties in supplying the federal capital, so that reserves of frozen meat had to be utilized and a 10 per cent subsidy on the price of cattle had to be temporarily granted to encourage sales.

The expansion of dairy production which had taken place during the last two years came to a halt, largely because of high production costs and stabilization of the retail price, which rose only towards the end of 1954.

The production of wool stood at 180 thousand tons, that is, 2.7 per cent lower than in 1952/53. There was thus a sharpening of the downward movement which has recently become apparent.

(c) *Development policy*

The direction taken represented a continuation of the 1953 policy, although more attention was devoted to live-stock. The Government maintained its system of official purchases at guarantee prices, these being similar to the previous year's, with a few exceptions where they were raised to counterbalance the disadvantages affecting certain products, such as sunflower-seed and linseed. Prices were planned to ensure farmers a reasonable profit, independent of world price fluctuations.

This policy created certain difficulties with respect to the reciprocal position of particular products which compete for the same kind of soil and natural resources or which represent an appreciable proportion of the production cost of others. Thus, the price subsidy granted to maize in earlier years discouraged sunflower-seed crops for the former reason, and pig-rearing for the latter. This suggests that there is little margin for expanding the area under cultivation.

While most official prices were maintained despite the further decline of the world market, the force of this policy was weakened by the rise in domestic costs. Prospects of improvement, therefore, must be considered to lie in the achievement of higher technical and administrative standards in agriculture, and it was towards this goal that the development policy was largely directed.

A new method of marketing the harvests, established in 1953/54, eliminated intermediaries and simplified official procedure. The Dirección Nacional de Granos y Elevadores extended the work of the technicians responsible for seed classification to all agricultural areas and was assisted by a network of 500 branch banks. Moreover, IAPI bought the whole of the cereal and pulse harvests from co-operatives or from the farmers themselves.

Storage capacity increased; it now stands at almost 2 million tons, and plans are already under way to enlarge it by 1957 to 4.6 millions, a capacity which is adequate for a 10 million-ton harvest. Furthermore, with the aid of

credit and the stimulus of a small premium on storage and disinfection facilities, the building of privately-owned underground silos is being encouraged.

The mechanization of agriculture progressed, although tractor imports declined to 3,200 units in the first nine months of 1954, as against 8,000 during the same period in 1953. The major effort is being concentrated on the domestic production of tractors, which has already begun and will be expanded in the next few years. The mechanization of agriculture has acquired particular importance in Argentina because of world market conditions for its staple export products and the consequent urgency of raising labour productivity. For the same reason, the production and distribution of selected seeds and plants has been intensified.

The stock-breeding situation, which affects both domestic consumption and exports, caused special anxiety. Argentina's remarkable natural advantages explain why this activity has hitherto been so widely exploited. But modern methods of pasture and herd management—successfully adopted elsewhere—have not yet become widespread in Argentina, despite the satisfactory results obtained from a few experiments. The development measures recently adopted by the Government to increase the animal population are aimed at establishing stock-breeding on a more rational basis.

Credit facilities offered by the Banco de la Nación are chiefly intended to assist in financing purchases of cows and the rearing of calves; loans are granted for terms ranging from five to seven years, according to the conditions in the various areas. The provisions for the trade in bull-calves that came into force early in 1954 established a new scale of prices and bonuses for lighter-weight cattle. The aim of this measure was to encourage the breeding and sale of stock with a higher proportion of good quality lean meat, and better adapted, therefore, to satisfy consumer requirements, as well as to discourage breeding for a high fat content. Grazing capacity can thus be more fully utilized and the production of meat per unit of time and land may be increased. In order to encourage rational breeding and to relieve seasonal shortages, a system was renewed which had already been followed in previous years, namely, that of granting price bonuses on bull-calves reaching the meat industry or the cattle markets of Liniers and Rosario between 16 May and 31 October.

For the same purpose, new methods of classification were adopted for pigs, at price levels higher than those formerly obtaining. The unfavourable relative prices which, together with other factors, had caused lower production, were thus partly offset.

The Ministry of Agriculture has begun experimenting on a small scale with the acclimatization and production of new kinds of fodder.

2. *Mining*

The importance of mining in Argentina is slight when compared with other branches of production. The degree of industrialization achieved has intensified the need for mineral raw materials and fuels, so that official efforts are being made to develop this activity. The existing obstacles include transport difficulties, shortage of equipment for prospecting and exploitation, and the apparently limited size of those deposits which can be worked economically. The principal mining products are petroleum, iron, lead,

zinc and coal, but deposits of tungsten, aluminium and magnesium sulphate are also being worked. At a recent meeting of experts convened by the Ministry of Industry, it was agreed to recommend that priority be given to surveys on deposits of copper, antimony, tin and aluminium ore, in view of their vital importance for the country's economy.

(a) *Petroleum*

According to official data, the output of crude petroleum amounted to 4.7 million cubic metres, of which 3.9 millions were accounted for by the State-owned Yacimientos Petrolíferos Fiscales. These figures represent a 5 per cent increase over the 1953 output, which in turn had been 15 per cent higher than that of the previous year.

In the course of 1954, the drilling of a sixth well was completed at the Campo Durán oilfield, in Salta Province. This oil-well is expected to reach the exceptional initial production capacity of 300 cubic metres of crude petroleum and 600 thousand cubic metres of natural gas. A new deposit is being exploited to the south of Mendoza and the first well has entered production with a capacity of 250 cubic metres daily. The existence of further new reserves near Comodoro Rivadavia has also been announced.

Some progress in refining was made during 1954. The enlargement of the Luján de Cuyo refinery in the province of Mendoza raised its daily capacity to 1,200 cubic metres of crude petroleum. Early in 1955, the refinery established by Yacimientos Petrolíferos Fiscales at Ciudad Eva Perón, with a daily capacity of 4,500 cubic metres, was ready to enter production. This plant comprises 10 groups of installations of a high technical standard, covering an area of 600 thousand square metres; its storage capacity amounts to 360 thousand cubic metres, and it is equipped to refine petroleum with a high sulphur content, which will be utilized for sulphuric acid production.

In the five years which have elapsed since the inauguration of the *Presidente Perón* pipeline connecting Buenos Aires with the Comodoro Rivadavia deposits, it has carried 700 million cubic metres of natural gas, which has represented an economy of 700 thousand tons of coal and 400 thousand tons of diesel oil.

In April 1954, the Government purchased one of the largest privately-owned petroleum enterprises for 74.8 million pesos. The final stage has also apparently been reached in negotiations for a United States firm to combine with Argentine investors for the exploitation of petroleum resources in Patagonia; the necessary capital will amount to 20 million dollars, and each party will contribute half.

(b) *Coal*

The difficulties inherent in the early stages of exploiting the Río Turbio coal deposits have not yet been overcome. Argentina's coal output in 1954 represented only 93 thousand tons, which was higher than production in 1953 but below the 1952 figure of 112 thousand tons. These would seem to be extremely modest statistics when compared with domestic consumption requirements, which required imports of an average of 1.74 million tons annually over the period 1946-51. To supply the Río Turbio collieries with power, a thermo-electric plant of 6,000 kW was acquired in 1950.

(c) *Other minerals*

Iron ore output in 1954 was estimated at 60 thousand tons. The aggregate reserves of the Zapla, Puesto Viejo and Sierra Grande deposits were calculated to be 186 million tons, with an average content of 50 per cent.

Zinc production rose slightly, totalling 18 thousand tons as against 16 thousand in the previous year. Estimated lead production stood at 16 thousand tons, which was higher than that of 1953 but lower than the recent average. However, it is expected that the output from the new Calingasta deposit near San Juan, which should reach a daily capacity of 200 tons, will enable this figure to be exceeded.

3. *Industry and energy*

The depressive trends in 1953, which brought industrial production down to its lowest recent levels, continued to be felt in the early months of 1954, when most of the handicaps under which this branch of activity had been labouring were still present. They included a decline in sales and an accumulation of surpluses; a reduction in prices aimed at increasing sales but unaccompanied by lower costs; production below capacity but with no possibility of decreasing employment; delays in payment and credit restrictions which did not permit the fulfilment of commitments undertaken during the period of expansion; difficulties in raw material supplies, and so on. To these factors must be added the labour troubles arising from demands for higher wages. In mid-1954, however, some of these obstacles were removed and the process of expansion began afresh. The situation at the close of the year was favourable, so that the downward trend apparent since 1951 seems to have been reversed, even though the levels of that year have not yet been regained.

This recovery, so far only incipient, may be attributed to a combination of factors, including the relaxation of credit restrictions which aided the financial development of individual enterprises and influenced the demand for manufactured goods. By the end of November, sales indices of the large Buenos Aires department stores showed an increase of 13 per cent in relation to the same period in 1953, although once again the rise in prices was not without its effect.

Demand was favourably influenced by the renewal of investment activities within the Five-Year Plan and by higher earnings in the agricultural sector as a result of two consecutive good harvests. Wage increases, while they compelled many enterprises to resort to bank credit to cover them, provided a further impetus.

The *Lev de Inversiones Extranjeras* began to yield results; the proposed investments approved at the end of October represented 162 million pesos, while others on a somewhat larger financial scale were still in process of negotiation.⁸ Marked interest was shown by foreign investors and the proposals accepted or under review include many of great importance for Argentina's economic development. One project involves the joint investment of United States and domestic capital for the production of motor vehicles (jeeps, station-wagons, passenger cars); another enterprise sponsored by European firms aims at satisfying 80 per cent of the country's tractor requirements; while yet others would cover the manufacture of

⁸ Official statements of the Minister for Economic Affairs.

pencils, plastic products, spare parts for passenger cars and agricultural machinery, refined lubricants, veterinary accessories, etc.

These incentives to fresh industrial prosperity were reinforced by the prospect of a moderate degree of inflation. Nevertheless, the Government is aware of the risk that an acute inflationary process may recur, to the detriment of the over-all economy. The future evolution of industry naturally depends upon the development of the capacity to import. In this connexion, the most significant unknown factors lie in the ability of the agricultural sector to maintain and even to raise its level of activity, in the final results of forthcoming harvests, and in world price fluctuations for Argentina's exports.

During 1954, the dearth of machinery and replacements which had been adversely affecting certain industrial sectors became acute, and its only remedy lies in a larger volume of imports. Some of the factories producing food-stuffs — sugar mills being a typical example — need new machinery to bring their processing techniques up to date and to increase their productivity. Breweries and distilleries, the building and metallurgical industries, paper and board mills, textile and ready-made garment and printing and engraving industries all complained of the need to renew their plant, machinery and installations.

The scarcity of raw materials, although less acute than in 1953, was evident in several sectors. The shortage of oil-seeds, especially sunflower-seed, affected the edible oil industry. Rubber factories, deprived of a regular supply of raw material, which in this case is mainly imported, were obliged to work at 30 per cent below capacity. The metallurgical industry was faced with a comparative lack of copper and zinc, while raw materials for the paper and board mills, the printing trades and furniture manufacture were also in short supply.

Industrial recovery thus emphasized the inadequacy of imports of capital goods and raw materials. The increases registered in 1954 were insufficient to cover the deficit created by the low quantum of imports in 1952-53.

Despite the inequalities noted in the various sectors, the recovery was of a general character. Major increases were recorded in foodstuffs and beverages, hides, paper and board, chemical products and electrical machinery and apparatus. Although cement output amounted to 1,709 thousand tons, thus exceeding that of the previous year, a considerable expansion of building activity made it necessary to import a further 270 thousand tons, as com-

pared with only 1,000 tons received from abroad in 1953. Building permits granted in greater Buenos Aires during the first quarter of 1954 were 11.3 per cent more numerous than in the corresponding period of 1953.

Work proceeded on the construction of the San Nicolás iron and steel works, which will have an annual production capacity of 500 thousand tons. The blast furnace has already been ordered, while the rolling-mill, with an annual capacity of 400 thousand tons, was purchased in the United States for 9 million dollars and arrived in Argentina during September.⁹

The iron and steel transforming industry, which is already well developed, has not expanded significantly during the last three years, but the outlook is encouraging. Mention has been made of the negotiations for greater foreign investments. Among the more important was the agreement to establish a joint company to build motor vehicles, signed with a United States firm which will contribute 115 millions of the 560 million pesos constituting the capital of this enterprise. The new plant will be set up on the outskirts of Córdoba and will consist of units for engine manufacture, die-casts and assembly lines; it will enter production in 1956, reaching total capacity by the end of 1957.

Industrias Aeronáuticas y Mecánicas del Estado are already producing tractors of the "Pampa" type, with a 1957 production target of 4,000 units annually. At the close of 1954, an agreement was reached with several foreign firms for the establishment of affiliated factories in Argentina, which by 1958-59 should be producing from 12 to 13 thousand tractors.

As regards electric energy, the installed capacity has not increased since 1953, when it represented 1,890 thousand kW, but the work of building new plants has proceeded. The San Nicolás thermo-electric power station, with a capacity of 320 thousand kW, will be the largest of its kind in Latin America and will shortly enter production, supplying greater Buenos Aires and industrial areas along Argentina's coastline. Substantial progress has also been made on the "El Nihuil No. 1", the hydro-electric power station near Mendoza which will have an installed capacity of 74 thousand kW.

⁹ Early in 1955, the Export-Import Bank granted a credit of 60 million dollars to the *Sociedad Mixta Siderúrgica Argentina* to enable equipment, material and technical services for the San Nicolás plant to be bought in the United States. Such purchases are expected to reach a value of 100 million dollars, so that this credit covers 60 per cent of the estimated expenditure.

Chapter II

BOLIVIA

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *General considerations*

Bolivia's dependence on tin became still more pronounced in 1954, when—apart from internal difficulties—the natural disadvantages of an economy highly susceptible to external fluctuations made themselves fully felt. The balance of payments showed a record deficit, while foreign exchange holdings dropped to 11 million dollars. No statistics are available with which to calculate gross income and its fluctuations, but there is every indication that it did not rise above the very low level of the preceding year. The volume of available goods probably improved slightly, owing to foreign aid, imports of consumer goods and excellent crops, resulting from unusually favourable weather and—to a lesser extent—from agrarian reform. The investment coefficient almost certainly remained at the low 1953 level, when capital goods imports dropped to 15 per cent of aggregate imports. Inflation continued unchecked, while obstacles impeding a policy to halt the spiral became more serious.

The authorities' main concern is to reduce Bolivia's extreme economic vulnerability, by introducing greater diversity into its hitherto unilateral exports and by simultaneously increasing production for the home market. Bolivia has not followed the same trend as other Latin American countries, in that no relative decrease of consumer goods imports has occurred, which implies that the substitution process employed elsewhere does not yet play a part in its economic development.

In 1954, the outstanding economic event was undoubtedly the putting into practice of agrarian reform, which had been given legislative approval in the preceding year. This reform is particularly significant in view of the backward state of agriculture and the stage of development reached. The high proportion of consumer goods imports reveals the inadequacy of domestic food production; it is thus clear that any attempt to promote development should begin by giving priority, if not exclusive status, to agricultural activities. None of the traditional shift of labour from agriculture to industry or other activities is present in Bolivia. For this there are two reasons. Firstly, agriculture needs to expand considerably, both in order to satisfy the chronic food shortage, and so as to increase exports and, consequently, the capacity to import. Secondly, at this early stage of industrial development, the labour market is very limited, while in mining, productivity per worker has decreased—an indication of over-employment in this sector. It is thus not surprising that agrarian reform plans include the incorporation of the surplus of mining labour, estimated at 6,000 workers, in agricultural activities.

No accurate data on income distribution exist. Agrarian reform, however, must have caused a redistribution of property, and to a certain extent of income, in favour of a large sector of the population, where it has had the important positive result of raising the general standard of living. The negative aspect is revealed in the effect of this redistribution on demand and inflation. The final outcome will depend, however, on the degree to which available goods are increased by the reform.

2. *The balance of payments and foreign trade*

(a) *The balance of payments*

In 1954, Bolivia's balance of payments showed a record deficit, estimated at 27 million dollars, or more than one third of the capacity to import, which fell below the 1950 level.

Nevertheless, the value of imports of goods and services rose by about 12 per cent. Of so large a deficit, 13 million dollars were covered by the gold and exchange holdings of the Banco Central,¹ and most of the remainder by United States economic aid.

Lower exports mainly reflected the deterioration of the tin market and of domestic production conditions. During the first seven months, total sales to the United States declined by 25 per cent in relation to the same period in 1953, though exports to the United Kingdom showed no change.

There are no figures on the movement in the capital account since 1952. It is known that the Government is seeking to obtain large credits from groups abroad. Foreign credit for imports of manufactured goods to a total value of 20 million dollars has so far been obtained from Belgium, the United Kingdom and Western Germany; this amount is repayable in four to five years and may reach 40 millions. The Government is negotiating with an industrial group in the United States for the investment of 20 million dollars, with which to establish domestic factories. Now that the mines have been nationalized, the only major outflow of capital represents payments to the former owners, which, according to official sources, had amounted to 3-6 million dollars by the close of 1954.

Basically, the solution to Bolivia's balance of payments problem lies in overcoming the difficult transition period through which the country must pass while conditions are being created that will enable independence from tin to be secured through greater diversification of exports.

(b) *Foreign trade*

The quantum of exports dropped by 16 per cent in relation to 1953. Of the five metals which account for 88 per

¹ International Monetary Fund figures, which differ from official Bolivian statistics.

cent of the aggregate, tin, with a decline of 20 per cent, was relatively more affected than the others. Lead exports dropped by 21 per cent, but their share in the total is much smaller. Tungsten, which is of minor importance, alone showed an increase which amounted to 11 per cent.

From the point of view of exports, the tin crisis has two aspects. The over-all demand had declined, particularly in the United States, which is the main consumer of Bolivian tin. This reduction in demand was determined less by a decrease in consumption (which tends to remain stable) than by the liquidation of surplus stocks by the United States Government. Uncertainty over the continuation of operations at the Texas smelter (where the low-grade Bolivian ores are processed) also helped to account for the very low level of exports during the first four months.

The decisive factor limiting production, however, was of internal origin. Inflation, combined with a surplus of labour and low productivity, substantially increased costs and raised them well above world market prices. This situation mainly affected small- and medium-scale mining operations, but, although the Banco Minero de Bolivia was authorized to raise prices paid to producers, the new levels were insufficient to prevent a lower output than in 1953.

The fact that foreign currency must be exchanged at the official rate is apparently one of the serious handicaps to the development of other exports, because of the wide difference between the official and the free market rates. Barter agreements signed with other Latin American countries have partially overcome this difficulty. Petroleum sales have gained an impetus which should be stressed as the potential beginning of a fundamental change in the structure of Bolivia's foreign trade.

Foreign credit and the assistance programme of the United States Government made is possible to increase the quantum of imports by 13 per cent, despite the decline in the capacity to import. The 1951 and 1952 levels were thus regained.

Available data, although incomplete, show that there was no radical change in composition with respect to the preceding year, when there was a substantial decline in imports of capital goods and an increase in those of consumer goods. This arose partly from inadequate domestic food production and partly from the nature of the aid given by the United States.

The index of export prices shows a decline of 9 per cent in relation to 1953, when their level was already 12 per cent below that of the preceding year. This downward movement is mainly the result of the situation as regards Bolivia's basic metal exports on the international market. Prospects for 1954, however, were more favourable because of the stabilizing influence of the International Tin Agreement and the renewal of lead and zinc purchases by the United States Government for the strategic reserve.

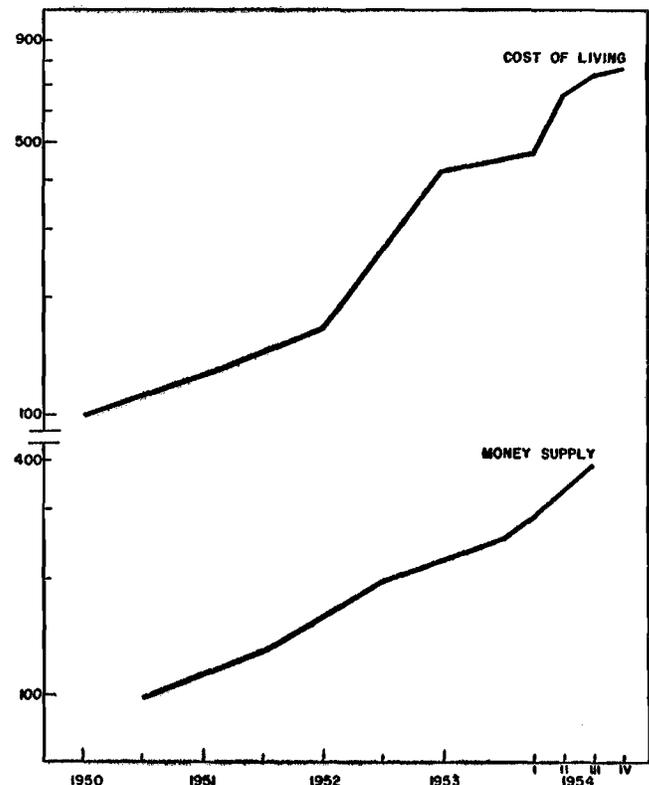
Import prices remained at about the same level as in 1953, so that the deterioration of the terms of trade stood at 9 per cent.

3. The monetary situation

An explanation of Bolivia's monetary situation is largely furnished by the economic aspects already analysed. The most eloquent evidence is found in the dollar quotations on the free market: 1,930 bolivianos in December 1954, compared with 1,070 in January, as against an

Chart XXII
BOLIVIA: INDICES OF THE MONEY SUPPLY
AND COST OF LIVING

1950=100
(Semi-logarithmic scale)



official rate of 190 bolivianos to the dollar. Reduced foreign exchange income; an uncontrolled inflationary process; speculation; insufficiency of consumer goods in the face of a growing demand caused by the redistribution of income; the considerable expansion of public expenditure, particularly owing to the activities of the Corporación Minera, and its financing by bank credit: these are now the ruling circumstances, and, moreover, they exert their influence upon a plane of far-reaching economic and social reforms.

In the course of the inflation affecting Bolivia, the increases in the money supply, in prices, in rates of exchange and in wages are combined as interacting forces, ever accelerating with an automatic regularity that leaves the authorities powerless to check the course of events.

The money supply increased more than in 1953, entirely as a result of internal factors, arising particularly from the public sector. The influence of public finance has become far more pronounced in recent years, especially since the end of 1952, despite higher tariffs and efforts to improve the tax collection system. The main causes are the increase in government salaries to keep pace with the rise in the cost of living, and the methods adopted to solve the mining difficulties. The nationalization of mining, instead of bringing about a rise in fiscal revenue, resulted in a considerable operational deficit (2,000 million bolivianos in 1953 and 4,000 millions in 1954) which compelled recourse to bank credit.

Credit to the private sector also increased, the quantitative restrictions imposed in 1953 having been relaxed so

that enterprises could meet the increase in current costs arising from price, salary, exchange and tariff increments.

The money supply and the cost of living followed the same course, but the latter rose at a much faster rate. (See chart XXII.) The action of the forces already discussed resulted in an increase of monetary income and, therefore, of expenditure, with a corresponding acceleration of the rate of monetary circulation. Demand was necessarily more intense, for not only was the purchasing power of workers maintained by periodic wage increases, but there was also a transfer of income in favour of sectors hitherto endowed with abnormally low purchasing power. In addition, the actual supply of goods certainly fell short of availabilities, which were apparently inflated by good harvests and heavy imports, because of the speculative accumulation of stocks and on account of re-exports. Moreover, imports in 1953 were very low and the recovery in 1954 was insufficient to restore them to the 1952 level.

The Government programme for mobilizing all domestic resources and directing them towards production meant a temporary abandonment of the 1953 anti-inflationary policy, since the banking system and public finance were put at the service of this programme. Its implementation will largely depend on the continuation of extraordinary foreign aid.

Thus, with the purpose of increasing the volume of bank loans for industrial development, it was decided in June that the Central Bank and the private banks should invest, in the form of industrial credits, 20 per cent of their holdings within a term of 12 months as from 30 April, and another 20 per cent within 24 months. Such credit would be granted at an interest of from 8 to 10 per cent, with terms up to eight years, and its use would be strictly controlled. The Banco Agrícola also authorized more liberal loans to agriculture.

In the fiscal sector, efforts are likewise being made to increase investment and production, using the counterpart of the United States aid,² foreign credit for capital goods imports, tax exemption for new industries and special treatment for foreign investment. Budget cuts for 1955 do not affect investments planned for high productivity.

II. BRANCHES OF PRODUCTION

1. Agriculture

(a) Agrarian reform

Agricultural activities were greatly affected by the legislation on agrarian reform enacted in August 1953. By its terms, the farm workers or peons, who until that time had cultivated areas of varying size as payment for their work on large estates, automatically became landowners. Estimates by the Dirección de Economía Rural indicate that in this way about 40 per cent of the arable land in the *Altiplano* passed into the hands of small farmers. It is also estimated that before agrarian reform, 80 per cent of the agricultural labour force had received only 10 per cent of the income derived from this sector. This distribution of agricultural income underwent a radical change, not only because of the greater interest of many new smallholders in cultivating the land, but also because of the consequent rise in the wages of agricultural workers.

The immediate impact of agrarian reform on production, however, was not uniformly favourable. In some cases

² Proceeds of the sale of commodities shipped to Bolivia from the United States.

it stimulated the cultivation of larger tracts and even the achievement of higher yields, but in others the adverse effects which naturally follow a radical institutional change appeared. Nevertheless, although statistical data are lacking, it is estimated that the exceptionally good weather throughout the country outweighed these disadvantages and enabled better crops to be harvested than in the preceding year.

The new agrarian system is still far from being completely organized. The work is proceeding slowly, for example in the legal distribution of land and ownership titles. In many cases, too, the technical, economic and social research required for rational exploitation is still lacking, and in others, the land allotments given to individual families are too small to be an economic proposition.

Among the favourable results must be numbered the increase in agricultural co-operatives, the number having grown from less than 20 to 176 at least. The Government has exempted them from departmental and municipal taxation.

(b) Production trends

According to official statements, wheat production during the 1953/54 agricultural year appears to have reached the highest level recorded for ten years. Rice supplies, which normally sufficed only to satisfy demand in the Department of Santa Cruz and some of the requirements of Cochabamba, have this year met the needs of both Departments and those of Chuquisaca in addition. Maize production reached exceptional levels, mainly as a result of the introduction of the "Cubano Amarillo" strain, which yields 4,700 kilogrammes per hectare, against 2,000 from the indigenous varieties.

Sugar production has also progressed, thanks to an increase in the capacity of the two existing mills, where the equipment was improved and for which an official loan of 40 million bolivianos was received, as well as an advance of 180 millions against the forthcoming crop. A new refinery, with an annual capacity of 10 thousand tons, is being installed by the Corporación de Fomento de Santa Cruz, at an approximate cost of 3 million dollars. Sugar imports are expected to drop from 35 thousand to 10 thousand tons annually. Sanitation campaigns were also initiated in the sugar plantations.

(c) Economic assistance and development measures

Sales of food donated by the United States provided the Bolivian Government with the means to invest in agricultural development programmes. They were supplemented by deliveries of tractors, transport equipment and small machines. Total aid amounted to 22.6 million dollars in 1954, and almost 20 millions more have been announced for 1955.

The administration of credit policy in relation to agrarian reform was entrusted to the Banco Agrícola, whose capital was expanded to 2,000 million bolivianos, while the Central Bank was authorized to grant it rediscounts for a maximum of 600 millions. The plans include long-term loans to smallholders, government insurance and the purchase of agricultural products by the State.

Since April 1954 minimum prices have been established for rice, wheat and yellow maize. A system of free prices was established for coffee, in order to encourage new plantations and to improve those already existing, with the aim of entering the world market.

The colonization programme began, with the arrival of more than a hundred Japanese families in 1954.

Mechanization made some progress with the help of United States aid and credit obtained from European suppliers.

Several international organizations—including FAO, the Technical Assistance Administration, UNICEF, and the Inter-American Agricultural Service—collaborated with the Ministry of Agriculture and the Corporación de Fomento on a number of economic and technical assistance programmes.

2. Mining

In 1954 Bolivia's mining production was about 15 per cent below the 1953 level, almost exclusively because of the 20 per cent decline in tin production.

The internal causes of this phenomenon played a more decisive role than the external. In fact, world prices improved appreciably during the second half of the year, when Bolivia signed the International Tin Agreement, so that output recovered slightly; the pace slackened towards the end of the year, despite the greater steadiness of the market. Furthermore, the United States Government decided to continue operations at the Texas smelter until 30 June 1955.

The lack of response to external encouragement lies in the handicaps under which tin mining is developing. These disadvantages are not only the effects of increased costs arising from inflationary wage increases and other requirements imposed by recent social legislation. Production costs have also risen, because the most accessible veins have been depleted and new veins lie at a greater distance from mine shafts, lower grades of ore are being extracted, replacement of equipment and machinery is expensive and labour productivity has decreased.³ Production costs per pound of tin, amounting to 1.03 dollars in 1953, increased to 1.13 in 1954. The rise in price from 0.80 U.S. cents per pound in 1953 to 0.94 on the New York market was only sufficient to reduce losses. This also accounts for the heavy losses suffered by the Corporación Minera de Bolivia, estimated at 4,000 million bolivianos in 1954, on the basis of the exchange rate applied to exports.

One of the means of achieving a greater foreign exchange income for mining appears to be the establishment of a tin smelter in Bolivia itself. The Government has announced that West German experts will be contracted to study the best process for smelting tin in the geographical conditions of the *Altiplano*. The Pyrometallurgical Laboratory of the Banco Minero is said to have discovered a new smelting method with great economic and technical advantages. Although the establishment of a smelter operating with this new process would cost about 20 million dollars, foreign exchange savings would amount to 11.5 million dollars annually and Bolivia would be free to sell its own tin. As to the problem of internal costs, if no change is introduced in the exchange rate, the solution would seem to lie in an increase of productivity achieved through greater mechanization, although this would pose the problem of employment for the resulting surplus labour.

Small mining was able to continue operation, thanks to credit facilities and the subsidized prices paid by the Banco Minero, backed by the Central Bank. Three mag-

netic-separator units were installed which brought about an appreciable improvement in tungsten grades and in the percentages of recovery. Exports of this mineral rose by 11 per cent compared with the preceding year.

Lead and zinc output dropped 23 per cent and small-scale copper production—which was expected to cease operations in 1953—was maintained, although at a much lower level. In collaboration with Brazilian industrialists, a Bolivian company drafted a development and industrialization programme for copper with an initial investment of 200 million bolivianos. This programme is being studied by the Government.

The greatest progress was apparent in petroleum. The output of crude rose to 268 thousand cubic metres, that is, 180 per cent above the 1953 level. At the beginning of 1954, the United States corporation which was granted concessions in the southern area of the Pilcomayo River started operations. The first drillings were successful. The expansion of petroleum output led to a considerable saving of foreign exchange for Bolivia and placed this country in a position to export to its neighbours (Argentina, Brazil, Chile, and Paraguay). Agreements for the sale of Bolivian oil or its exchange against other products have already been signed or are being negotiated with these countries.

3. Industry and energy

No statistics are available on the progress of industrial activity in 1954, apart from a few isolated data. It is known, for example, that the cotton textile industry was able to recover after the sharp decline in 1953, and that the situation in the wool industry also improved.

There are, however, some signs of more favourable future development. In view of the shortage of industrial materials in the preceding year, the Government authorized foreign exchange expenditure on these and other imports amounting to 15 million dollars. With the additional million dollars in cotton supplied by the United States under the Economic Assistance Agreement, an improvement in the textile industry was possible.

Because of the inadequacy of the cement plant at Viacha, the Government encouraged the renewal of the work, previously suspended, on the installation of a new plant at Sucre, with a daily capacity of 100 tons, authorizing the Central Bank to grant a loan of 50 million bolivianos.

A contract was signed with an Argentine firm for the creation of a semi-public company to build a match factory and a plant producing explosives, which are much used in Bolivia's mining activities. The capital would stand at 5 million dollars, of which 51 per cent would be contributed by the Government.

It has been announced that a factory for tyres and inner tubes will be established at a cost of 700 thousand dollars.

The Central Bank and private banks, as already mentioned, will provide long-term industrial credit, at a rate of interest fluctuating according to the proportion of domestic raw materials utilized.

There was no change in the output of electric energy in comparison with the preceding year. Bolivia's installed capacity stands at 107 thousand kW, of which 73 thousand kW are hydro-electric and the remainder are provided by thermic energy.

³ See the *Economic Survey of Latin America, 1953*, op. cit., pp. 188 et seq.

Chapter III

BRAZIL

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. General considerations

Brazil's economic situation in 1954 displayed strongly contrasting features. On the one hand, inflation gained a new impetus, while exchange and balance-of-payments difficulties became critical; on the other, gross income expanded by more than 11 per cent in relation to 1953, which is the record increase during the last few years. Simultaneously, the investment coefficient, which had already shown a relatively sharp fall during the preceding year, again declined to only 12.7 per cent of gross income, or one of the lowest post-war levels.¹

Many factors contributed to the growth of income. The terms of trade, which had remained consistently below the 1950 index, substantially exceeded it in 1954, thanks to the still more pronounced rise in coffee prices; and if they accounted for only 2 per cent of the increment in income, this was because the export quantum was considerably smaller. But the largest, and therefore the most significant, contribution was of domestic origin. In fact, the remainder of the rise in income reflects the expansion of the gross product achieved by an increase spread over all sectors.

Weather conditions were not of great importance to the satisfactory results recorded in agriculture, as they varied for individual crops. For agriculture, as well as for the other sectors, the main incentive to greater activity was provided by favourable price and market conditions.

A two-fold stimulus was given to domestic demand. Firstly, wage increases resulted in a redistribution of income in favour of large sectors of the population; secondly, the exchange reform of October 1953 diverted some of the demand for imported goods to the domestic market, in addition to acting in some degree as a mechanism for the redistribution of income. The surcharge on foreign exchange paid by importers passed into the hands of the public sector, which in turn transferred a share of it, in the form of exchange subsidies, to the export trade in general.

Greater production and the margin of imports over exports led to a higher rate of growth in the volume of available goods and services than in gross income (13 per cent). Consumption represented almost the whole of the increment and increased considerably both in the aggregate and on a *per capita* basis. The moderate rise in aggregate investment, on the other hand, signified a lower coefficient and a 10 per cent fall in *per capita* investment.

This decline in investment was reflected in the modest volume of capital goods imports, which, despite a slight recovery, still remained far below the high 1950-52 levels. Increased consumption, the financial austerity policy adopted by the Government and the credit restrictions im-

posed on the private sector, all contributed to discourage investment, though the influence of the last factor was undoubtedly strongest.

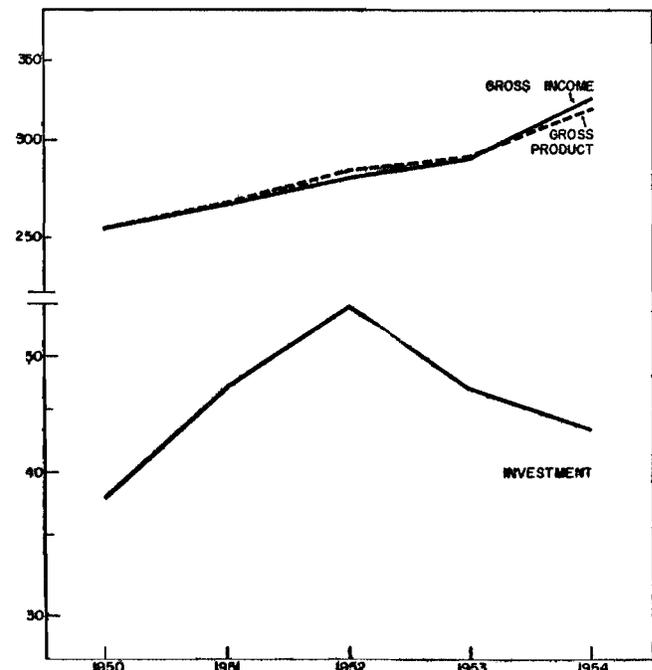
The fact that an increase in the gross product coincided with a downward movement in investment shows how economic activity reacted to the stimulus of greater demand by a better utilization of available capacity and labour; and it may also be attributed to the maturing of the large basic investments made in previous years, particularly in the spheres of electric energy and steel. Nevertheless, it is apparent that, despite the import substitution effected, the maintenance of such a high level of activity is closely bound up with balance-of-payments contingencies and, more specifically, with the capacity to import. For example, it has not been possible to reduce the large volume of raw material and fuel imports to the extent required by the external disequilibria of the last two years. These difficulties in their turn seem to be more closely linked than ever to fluctuations in production, prices and the market situation of coffee.

2. The balance of payments and foreign trade

(a) The balance of payments

In 1954, the balance of payments is estimated to have closed with liabilities of 150 million dollars, as against

Chart XXIII
BRAZIL: INCOME AND INVESTMENT
Thousand million cruzeiros at 1950 prices
(Semi-logarithmic scale)



¹ If the estimate were to include movements in stocks, the investment coefficient would rise, since the accumulation of coffee surpluses was particularly large in 1954.

assets of 90 million dollars in 1953. But this deficit reveals neither the nature nor the magnitude of Brazil's current difficulties with respect to the balance of payments, which in 1951-52 already showed a cumulative deficit of over 1,000 million dollars. Changes in international reserves are not very representative, nor have they the same significance as in countries with free convertibility. Gold holdings constitute a legal reserve and are subject to few fluctuations; those of foreign exchange, on the other hand, rose and fell within a declining trend, although these upward and downward movements reflected neither the use of short-term official credits, the balances on bilateral payments agreements nor the sale of foreign exchange for futures.

Brazil's balance-of-payments problem is aggravated by two correlative circumstances which, although they are to a certain extent common to all countries faced with similar difficulties, display peculiar features in this case. These factors are, firstly, the shortage of dollars, and, secondly, previous commitments.

The immediate cause of the dollar shortage is, in the main, the decline in exports of coffee to the United States, which fell more heavily than aggregate exports of this commodity. The remaining exports do not provide much relief, because probably not more than one-third of them are paid for in dollars. For this reason, Brazil has gradually had to reduce the supply of hard currency on the auction market; in November, only 10.4 million dollars were sold, three-fourths of which corresponded to agreement dollars. It was also found necessary to negotiate several short-term loans in the United States.

The over-all disequilibrium in the balance of payments was thus aggravated by an adverse tendency in the distribution of transactions by currency areas. Since 1951, the capacity to import from the dollar area has been declining, while imports paid for in that currency have tended to increase. The balance of payments with the rest of the world has followed a different course; in 1954, the capacity to import was 80 per cent higher than in 1950, while imports from the non-dollar area increased by only 40 per cent. This situation inspired the recent modifications in the application of the exchange subsidies system to exports, as a result of which more favourable rates of exchange are granted not only to given commodities but also to certain currencies.

Previously contracted commitments, represented mainly by short-term loans, obligations to surrender foreign exchange sold on terms of 120 or 180 days, and imports envisaged in bilateral agreements, absorb a substantial part of the capacity to import. The most serious of these commitments are short-term loans, the servicing of which has involved Brazil in further borrowing and in the consequent mortgaging of its future foreign exchange receipts. This burden was eased to a certain extent by the reduction of the monthly servicing of the Export-Import Bank's loan from 13 to 4.2 million dollars, and even more by the consolidated credit of 200 millions granted on a five-year term by a group of United States banks.²

Trade arrears with the United Kingdom were appreciably reduced, in part by means of a loan from the Inter-

national Monetary Fund, but the scarcity of sterling was very severe. The commercial debt with Western Germany was also lowered considerably.

(b) *Foreign trade*

(i) *Quantum of exports.* While domestic demand exerted a stimulating influence upon production, Brazil's export trade encountered unfavourable market conditions for coffee, which constitutes by far the most substantial source of foreign exchange earnings. During the first months of the year when the market was favourable, Brazil, unlike other coffee-producing countries, did not reap the full benefits because exporters maintained higher prices than those prevailing elsewhere, which placed Brazil at a disadvantage for competition. The official adoption of this policy in May, and the establishment of a minimum price, coincided with a serious deterioration in the world market situation, largely due to the consumers' reluctance to pay such high prices for coffee. Despite the recovery which took place during the last two months of 1954, the quantum of coffee exports for the whole year fell 27.5 per cent below the 1953 figure.

The magnitude of the decline was partly offset by the larger volume of cotton and cacao exported, so that the decrease in the quantum of aggregate exports in 1954 amounted to only 13.3 per cent. The export composition was therefore substantially modified, since coffee—which traditionally accounted for a little over two-thirds of the total—represented only 51 per cent in 1954, while the share of cotton rose from 8 per cent in 1953 to 23 per cent in 1954. In the same interval the proportion of cacao exports also increased slightly, from 4.7 to 6.2 per cent.

Despite the considerable extent to which coffee exports were curtailed, the better prices and the larger volume of cacao and cotton shipments acted as compensating elements, so that the current value of exports in 1954 was approximately the same as in the previous year.

(ii) *Quantum of imports.* The increase of 25 per cent registered in the quantum of imports was appreciably in excess of the capacity to import. Foreign trade credits enabled this expansion to take place and may be explained by the abnormally low level of imports during 1953. The reduced volume of imported goods thus limited the efficacy of the Government's restrictive measures, especially those concerning exchange. Nevertheless, the volume of imports in 1954 was lower than in 1951-52.

The policy of differential rates of exchange—reflected in the various categories of the exchange certificates sold at auction—principally affected the composition of imports in the sense that their 1953 structure was maintained. The modifications which took place during that year assigned a smaller share to consumer and capital goods and a substantially larger one to imports of fuel and raw materials; in the case of raw materials, the change merely involved a return to the 1950 level.

(iii) *The terms of trade and the capacity to import.* Despite the lower prices registered in the second half of the year, the average figures for 1954 indicate a 34 per cent rise in the price of coffee, of which, as has already been mentioned, Brazil failed to take full advantage. The smaller volume of shipments weakened the effect of this rise on the price index of total exports, which nevertheless showed an increase of 17 per cent. With regard to imports, Brazil benefited by a 7 per cent reduction in the price

² In mid-1954 the Export-Import Bank granted Brazil a 15-million-dollar loan for purchases of wheat, and, in March 1955, another 75 millions to assist with the deficit in the balance of payments for the first six months of 1955.

index, which was far greater than that obtained by other countries and was mainly due to the influence of wheat and certain commodities from European sources. This led to an exceptional improvement of 25 per cent in the terms of trade. Thus the fall in the quantum of exports did not hinder the capacity to import from rising by 8 per cent, although it remained lower than in 1951 and has not recovered all the ground lost during the 1952-53 period.

(iv) *Trade channels.* It has already been seen that the origin of some of Brazil's serious difficulties as regards the balance of payments lies in the lower sales of coffee to the United States and in the increased commitments with that country. Aggregate exports to the United States decreased from 48.4 per cent to 33.2 per cent, while imports from this source rose from 29.8 per cent to 33.4 per cent during the first eight months of 1954.³ This indicates a change of some importance in the geographic distribution of Brazilian trade, despite the circumstantial nature of the factors that have contributed to reducing coffee exports.

Trade with Western Europe displays different features. Exports rose to a greater extent than imports, partly because the price increase did not affect the stability of European purchases of coffee and partly because a substantial recovery took place in cotton exports.

Although incomplete, the statistical data on trade with the USSR and Eastern Europe indicate that appreciable progress was made, largely through re-exports from other countries with which Brazil has regular trade connexions. It is known, for instance, that coffee exports and wheat imports passed through Finland to and from the USSR. Apparently, the substantial increase in coffee sales to Western Germany was also linked with shipments to Eastern Europe.

But the major relative advance was achieved in Brazil's trade with Japan. Imports from that country increased ten-fold from one year to the next, with the result that it now ranks fifth among Brazil's suppliers.

Trade with the other Latin American countries showed no change of direction, except for more intensive relations with Uruguay, which sold its wheat and flour surpluses to Brazil under a bilateral compensation agreement. As regards Argentina, one of the usual periodic reversals of the situation took place, this time to the advantage of Brazil. Because Brazil's imports of Argentine wheat were lower, the heavy deficit in 1953 became a favourable trade balance for Brazil in 1954.

3. *The monetary situation*

(a) *Evolution of inflation*

A rise of 24 per cent in wholesale prices and a 19 per cent increase in the cost of living, the highest for the past five years, offer a clear indication of the acceleration of the inflationary process. In a preliminary assessment, attention is first drawn to the unequal growth of the two basic factors in a process of this nature: firstly, available goods and services, and, secondly, the money supply. While the former increased by a little more than 13 per cent, the latter expanded by over 26 per cent, keeping pace with the rise in effective demand and nominal wages.

³ The increase in the volume of exports to the United States during the last two months of 1954 does not alter these figures to any appreciable extent.

It has already been explained why more goods were available. As for the increase in the money supply, it was influenced by contradictory forces operating either alternately or simultaneously those of an expansive nature definitely predominating.

The anti-inflationary programme adopted at the end of 1953 was only partially implemented and had to give way to the demands of more immediate financial and economic difficulties. The abrupt rise in wages, designed to arrest the downward movement in real remunerations, led to a redistribution of income which, combined with the influence of the differential exchange system, created additional demand. It is true that available goods and services increased, but, apart from the fact that this increment partly offset the reduction in 1953, such goods were marketed on less favourable terms because of higher domestic costs, exchange devaluation, or both these factors simultaneously. Furthermore, owing to speculation and the well-known problems of distribution and transport, the increase in available goods was in actual fact less than that recorded in the statistics.

(b) *External factors and exchange policy*

The fluctuations of reserves, within a downward trend, inadequately demonstrate the incidence of external factors upon the monetary situation. When external accounts were favourable, they exerted a direct expansive influence through the creation of the money supply. When they showed a deficit, as in 1951-52, their effect was in principle restrictive, because of the absorption of the money supply. Nevertheless, the heavy imports during those years—which were partly responsible for the imbalance—were the result of the deliberately stimulative use of credit expansion. Thus, the creation of the money supply was indirectly influenced by external factors. A more or less similar situation occurred in 1954, when the foreign accounts, although again unfavourable, were the indirect cause of an expansion of the money supply. In the first place, more expensive foreign exchange in terms of cruzeiros obliged importers to draw more heavily on bank credit. Secondly, the need to promote exports resulted in the granting of subsidies to exporters and, consequently, in an increase in the money supply. It might be argued that the credit expansion brought about by these methods was offset by the freezing of part of the foreign exchange earnings, but this latter lost much of its significance when the fund thus created was utilized for purchasing coffee at the minimum fixed price. Moreover, exchange profits declined appreciably during the second half of the year, because a shortage of foreign exchange prevailed.

The aims of the exchange system established in October 1953 had been: to achieve equilibrium in the balance of payments without adversely affecting essential imports; to liquidate arrears; and to obtain a margin of profit. It has already been seen how the unfavourable evolution of exports and the burden of commitments prevented these objectives from being attained. The measures later adopted by the authorities have not constituted an attempt to modify the system but have merely adapted its implementation to the circumstances. Thus, the availability of different types of foreign exchange on the buyers' market had to conform to the supply, and the composition of the exchange categories was subject to slight alterations. Furthermore, measures to encourage exports included the establishment of minimum prices and/or the granting of

exchange subsidies. In August, it was decided that exporters should receive 20 per cent of their foreign exchange at the average buying rate of the free market. Shortly afterwards, this system was replaced by a fixed subsidy for coffee of 13.14 cruzeiros per dollar and by preferential exchange rates for all other exports. These benefits were increased in the first quarter of 1955.⁴

(c) *Internal factors*

(i) *The public sector.* The proposals for financial austerity announced by the Government at the end of 1953 could only partially be fulfilled. The budgetary deficit was estimated at 3,000 million cruzeiros, and that of official autonomous bodies at 12 thousand millions. To the factors already in existence—such as insufficient tax revenues, high investment, and low rates for public utility services—others were added in 1954 which made it very difficult to carry out any austerity programme. The new elements included the repayment of the short-term foreign debt and Treasury bills; wage readjustments; financial aid to the State of São Paulo; and the increased costs of official bodies resulting from higher wages and the rise in the price of imported raw materials. This greater expenditure made it necessary to resort once again to bank credit and, therefore, to intensify inflationary pressures.

In 1954, the Government made an effort to raise funds from extraordinary resources, including the issue of Treasury bills, the sale of which was encouraged by the advance payment of interest. During the last quarter of the year, more emphasis was placed upon the creation of ordinary resources. A reform of the taxation system raised income tax and imposed higher taxes on bearer bonds and on excess profits or those accruing from property transactions; the rates of various public utility services were also increased. As Congress rejected a draft bill for the heavier taxation of certain types of consumption, the Government announced its intention of suppressing public investment already approved that would necessitate new loans from the Banco do Brasil. Meanwhile, credits granted to the public sector by the Central Bank and private banks increased substantially.

(ii) *The private sector.* The control of credit was as a general rule more prompt and effective, so that the pressure of certain factors peculiar to this sector, such as investment in luxury goods and property speculation, was successfully reduced.

The measures were aimed at correcting, even if only partially, the excessive elasticity of the monetary and banking system, which set no limit to its response to monetary demand. During May and October, the Superintendencia de Moneda y Crédito raised the minimum cash requirement that banks must maintain in the Banco do Brasil, and the rediscount rate, which had been fixed at 8 per cent at the beginning of the year, was later increased for certain bills to 10 per cent. Furthermore, the interest on sight and time deposits was restricted to 3 and 5 per cent, respectively, to reduce speculation and larger credits from private banks. With the aim of improving the distribution of credits and private investment, it was decided at the end of 1954 that 25 per cent of the increment in savings deposits and unearned premium reserves of private insurance companies should be deposited in the Banco do Desenvolvimento Econômico.

⁴ The subsidy for coffee was raised to 18.70 cruzeiros per dollar in February 1955.

Nevertheless, the efficacy of these measures was hampered in 1954 by the strong influence of such new expansionist factors as the higher rates of exchange, the heavier financial cost of coffee-planting, and the rise in the minimum wage. Furthermore, the private sector became involved in the pressures originating in the public sector. During the first half of the year, the characteristics of the monetary and banking system permitted the primary expansion, represented by credits to the Government, to engender a secondary expansion through the greater liquidity of the private banks. Apart from this, the scope of the restrictive measures was severely limited because they were not applied to the Banco do Brasil. Further, the overall rise in prices intensified monetary demand; Brazil thus experienced the somewhat paradoxical situation, which has been in evidence elsewhere, of a latent liquidity crisis concurrent with a high degree of inflation. In this case, it was the result of two incompatible factors: the effort to moderate the growth of the money supply, and the addition of new expansionist elements to those already in existence, on which, moreover, only a very slight check had been imposed. When more severe credit restrictions were applied, two banks in São Paulo closed their doors in November, and some panic ensued, which was controlled by temporary advances to the value of 1,000 million cruzeiros granted by the Banco do Brasil to the other banks in that city.

In conclusion, although the restrictive policy had some effect upon the private sector of the economy, it was unable to prevent this sector from making at least a substantial contribution to the inflationary process.

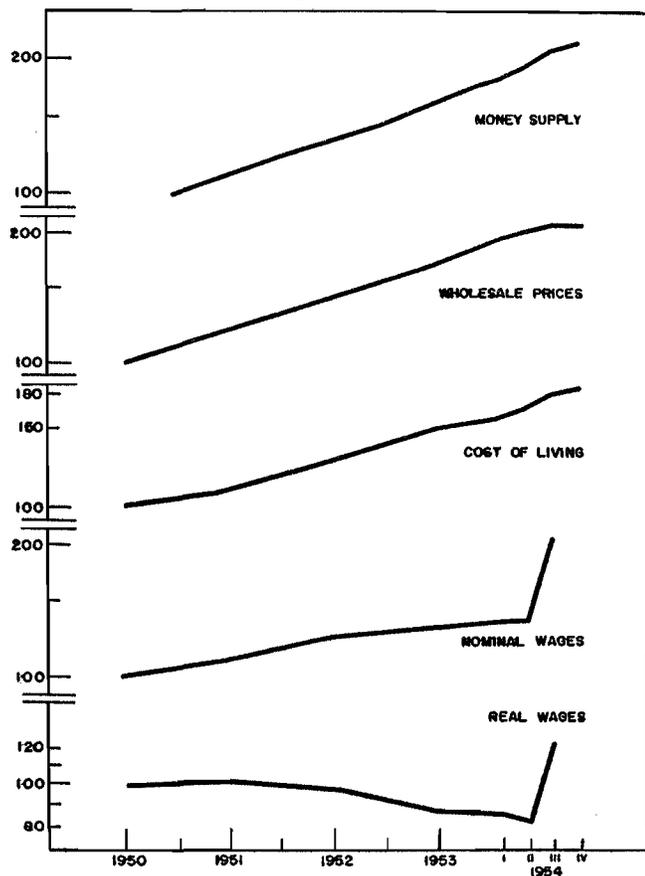
(iii) *Prices, cost of living and wages.* Mention has already been made of the magnitude of the rise in prices and in the cost of living, as well as of its determining factors.

The decision taken on 1 May to increase the guaranteed minimum wage arose from the persistent rise in prices. The increment did not in practice reach the anticipated 100 per cent, because the minimum wage established in 1951—the base year for the readjustment—was increased several times by agreements between employers and trade unions. Nevertheless, the new rate was higher than the current average wage and as, in addition, a scale of remunerations had to be computed on the basis of the minimum wage, it is estimated that the increase amounted to at least 54 per cent.

Although company profits were substantial in certain cases, the wage increase was too large for it to have been entirely or uniformly absorbed by the reducing of these profits. An effective redistribution of income and an improvement in real wages took place. Whether it will prove lasting will depend on how far the higher costs and prices which these wages themselves determine counteract the advantages gained, and, further, upon the capacity of companies to meet these increased costs and credit restrictions. Some unemployment in the industrial area of São Paulo indicates the existence of difficulties of this nature.

The Government's attitude to the problem of prices changed considerably. Thus, after it had been planned to freeze prices and ration commodities in short supply, it was decided to abolish these controls for lack of means to enforce them, and to give wider powers to official production and trade bodies for regulating the situation and at-

Chart XXIV
**BRAZIL: INDICES OF THE MONEY SUPPLY,
 WHOLESALE PRICES, COST OF LIVING
 AND WAGES**
 1950=100
 (Semi-logarithmic scale)



tacking speculation. In addition, an appeal was made to all sectors—especially that of trade—to adopt a régime of greater austerity and lower profits.

II. BRANCHES OF PRODUCTION

1. Agriculture

(a) General situation

Not only did agricultural production increase at a more rapid rate than the population in 1954, but the 7.2 per cent increment exceeded both that of the previous year and the average of 2.5 per cent recorded over the five-year period 1949-53. This expansion affected both crop production and stock-breeding, although it was far more pronounced for the former, which rose by 8.9 per cent, in contrast with an increase of only 1.5 per cent in livestock production.

The increment in agricultural production for the domestic market—approximately 10 per cent—was much higher than that of the 5.1 per cent rise in production for export. The latter was lower than in 1951/52, but the production for home consumption reached a record level.

The immediate causes of the expansion of agricultural production were the extension of the area under cultivation and the improvement in unit yields. The 930 thousand hectares added to the cultivated area are comparable with the largest increases during the post-war period. Further-

more, improved yields were almost a general rule, since 37 out of the 46 crops included in the official statistics recorded a higher production per hectare in 1954 than in the preceding year.

These larger yields are not without significance. The weather was not particularly favourable during the farm year 1953/54, so that the higher unit yields were obviously influenced by other less fortuitous factors. According to experts, at least part of the improvement resulted from the cultivation of virgin areas with fertile soils and from a wider use of more up-to-date agricultural techniques.

During the past two years agriculture has been encouraged in a number of ways, all of which deserve fairly detailed consideration. A distinction will again be drawn between production for export and production for the domestic market, for reasons which will become evident in the course of their description.

In 1952, the margin of profit for all export crops, except coffee, fell to insignificant levels. This situation mainly arose from the maintenance of the same rate of exchange as in previous years, from higher domestic costs and from the constant level, or, in some cases the reduction, of world prices for the commodities normally exported by Brazil.

The sharp contraction of profit margins continued until February 1953, when the Government authorized the liquidation on the free market of a part of the exchange accruing from certain agricultural exports. Devaluation—to which the exchange reform was equivalent—was, however, of only moderate intensity in comparison with the distortions caused in the world prices of Brazil's agricultural products by the previous over-valuation of the cruzeiro.⁵

At the end of 1953 an export subsidy system was established which in fact amounted to a new and more pronounced devaluation of the currency. Two immediate results were obtained through this measure: export prices for Brazilian agricultural products were placed on a competitive level with the rest of the world, and farmers obtained a satisfactory margin of profit. Sowing had already begun when this incentive was given, so that its encouraging effects were not immediately apparent, as was demonstrated by the slight contraction of the area under cultivation during 1954 in the case of almost all export crops. The measure did, however, induce farmers to give their crops better care. This and other causes detailed above account for the substantial improvement in the unit yields of export commodities⁶ during the 1953/54 season and for the subsequent expansion of production.

To this general rule coffee constituted an exception. From 1952 until the first months of 1954, its price followed a different course from that of Brazil's other agricultural exports. While their prices, as noted earlier, remained constant or even fell in many cases, that of coffee remained high until mid-1953, when a sharp upswing raised it to a peak level by April 1954. There can be no doubt that prices acted as an incentive to coffee-planting, although they did not exercise a very pronounced influence upon

⁵ It should be explained that devaluation affected only a few agricultural commodities. Another factor which tended to counterbalance the favourable influence of the initial modification of exchange policy was the uncertainty as to the evolution of the exchange rate on the free market.

⁶ Broadly speaking, the unit yield of export crops increased more than that of foodstuffs and raw materials for the domestic market.

production over the short term. Crop results, as will be explained later, were conditioned by other elements.

The high prices prevailing in 1953 comprised the main incentive to production for the domestic market; although the relative profits from crops for home consumption had been clearly improving since 1952, this process did not continue after the end of 1953 when the first devaluation took place.

Prices, however, were not the only dynamic element in this branch of agriculture. Other factors tended to stimulate production, among them the greater credit granted to farmers and the frosts which damaged the coffee plantations.

Agricultural credit granted by the Banco do Brasil rose from 2.5 million cruzeiros⁷ during the first nine months of 1953 to 3.3 millions during the same period in 1954—that is, by 30.4 per cent—while the increase from 1952 to 1953 stood at only 10.8 per cent.

Frosts represented an incentive inasmuch as they obliged coffee-planters to cultivate domestic consumer crops, in an effort both to retain available labour and to offset the reduction in their earnings caused by the partial loss of the coffee crop.⁸

The specific development measures adopted by the Government for wheat—particularly minimum guarantee prices—acted as an effective stimulus to production.

The devaluation of the currency had an adverse influence upon agriculture because of the rise in the prices of equipment and other imported materials, such as fertilizers, insecticides, etc.; but the depressive effect was limited by the small external share of agricultural production costs and by the policy which the Ministry of Agriculture adopted in the sale of farm machinery. A sizable proportion of the tractors imported in 1954⁹ were units bought by the Ministry with an 18-million-dollar loan from the Export-Import Bank. These tractors and other agricultural machinery, such as jeeps, water-spraying equipment and combine-harvesters, were sold to farmers on three-year credit and at cost price. Moreover, machinery and other materials used for agriculture were placed in the import category that enjoyed the most favourable rate of exchange under the new system.

(b) *Production for the domestic market*

The over-all improvement in production for domestic consumption was particularly marked for cereals. Despite unfavourable weather conditions, the wheat harvest was 6.7 per cent larger than that of 772 thousand tons registered in the preceding year. Still greater increments were obtained for maize and rice. The maize crop rose to 7.1 million tons and that of rice to 3.4 millions, volumes which exceeded those obtained in 1953 by 1.1 and 0.4 million tons respectively.

⁷ In this and the following estimate, loans for coffee, cotton, cacao, and livestock were excluded from the aggregate credit granted by the Banco do Brasil for agricultural purposes. It should be noted that this bank carried out most of Brazil's agricultural credit operations.

⁸ In some areas coffee-planters sowed rice, maize and other crops between the rows of coffee trees damaged by frost.

⁹ During the first nine months of 1954, tractor imports amounted to 10,701 units; in the same period of 1953 they had stood at 3,289 and in 1952 at 8,056 units.

There was little change in the area under sugar cane during 1954, although it has been steadily increasing during recent years, particularly in the State of São Paulo.

The stimulus for the expansion of this crop is not to be found in domestic consumption, which has grown at a slower rate than sugar production during the last few years. The main encouragement was given by fixing the price of sugar at a level compatible with unit costs for marginal producers, although such costs differ substantially from those of more efficient producers.

About 2 million tons of sugar were produced from the sugar-cane crop of 1953/54, leaving an exportable surplus of about 195 thousand tons. With this tonnage and the surplus carried over from preceding harvests, total stocks stood at 220 thousand tons at the beginning of the 1954/55 season.

In previous years, Brazil had met with difficulties in selling the surpluses on the world market, because of the high export price for domestic sugar. In 1953, however, a satisfactory volume of sales abroad (25.6 thousand tons) was achieved. Nor were any serious obstacles encountered in 1954, since the new exchange rate enabled sugar to be quoted at world market prices.¹⁰

Meat production again increased, although at a rate lower than that of demographic growth. Meat is probably the only foodstuff of any importance for which *per capita* consumption has declined in recent years; from 27 kilogrammes in the five-year period immediately before the Second World War, it fell to 21 kilogrammes in 1950-54. Experts attribute this downward movement to the underdeveloped state of Brazil's livestock production and to a considerable rise in the relative price of meat, which has led to its replacement by other foodstuffs.

(c) *Production for export*

Although aggregate production for the export market expanded, the increase did not cover all crops, since coffee and tung oil showed a decline in relation to 1952/53.

Coffee production stood at 1.05 million tons, or 5.1 per cent below the 1952/53 level, but it represented a better crop than had been foreseen in view of the frost damage to the plantations. Recovery was more rapid than was expected, thanks to well-distributed rainfall and the absence of pests.

Despite the smaller crop, the decline in world coffee prices which began during May 1954, and the reduced quantum of exports, the nominal income of coffee-planters probably increased. The rise was due in part to the measures adopted by coffee-planters to defend their earnings, such as the sowing of other crops, but mainly to the establishment of a minimum price in cruzeiros at a level very close to the peak price for coffee.

In 1954, better methods were used in the care of the coffee plantations; planters extended the area under cultivation, and, with the support of the official organizations, introduced new technical improvements such as the adoption of faster-growing strains, the more intensive use of fertilizers, the control of pests and diseases, and the construction of water-spraying systems.

¹⁰ The 1954 export quota allotted to Brazil under the International Sugar Agreement stood at 175 thousand tons.

This attitude, combined with the rehabilitation of plantations in the Paraná area, appears to provide better prospects for the next crop, but it has also caused some uneasiness as to future exports, which would leave unsold surpluses if maintained at the 1950-53 level. It is possible, however, that the price decline will give rise to an expansion of world demand for coffee, and that the export quantum from Brazil and other producer countries will therefore increase.

An analysis of the evolution of Brazil's trade over recent years will give a clearer understanding of the anxiety felt.

According to expert forecasts, coffee stocks by the end of the 1953/54 trade year¹¹ should have stood at only 42 thousand tons. These predictions were not fulfilled for two reasons: the 1952/53 crop was larger, while exports were lower, than had been expected.

In actual fact, at the beginning of the trade year 1954/55 there were almost 200 thousand tons of unsold stocks, which, together with the carry-over stocks of the 1953/54 crop¹² — 840 thousand tons — totalled 1.04 million tons available for the export market. During the first half of the 1954/55 trade year, Brazil's coffee exports to the United States continued to decline sharply, so that exports for that half-year — 336,500 tons — dropped 36.8 per cent in relation to the average for the same period during the preceding four years.

If it is assumed that during the remainder of the 1954/55 trade year (January-June 1955) exports will become normal and will reach the average volume for the last four years (405.8 thousand tons), the surplus will amount to some 270 thousand tons by the end of the year.

Sufficient information is not yet available on which to base an accurate estimate of the export volume to be obtained from the 1954/55 crop. It is probable, however, that in São Paulo and other states the levels of the preceding year will be maintained. An increase of about 200 thousand tons is calculated for the Paraná area. Under these circumstances, exportable production would rise to almost 1.04 million tons, which, added to the existing surplus of 270 thousand, would give an export availability of about 1.3 million tons for the trade year beginning on 1 July 1955. It need hardly be added that these stocks substantially exceed the average annual volume of coffee exports during the period 1950-53.

As regards other crops, the most pronounced increase was registered by cotton. Production in 1954, standing at 447 thousand tons, was 19 per cent higher than in 1953 and 13 per cent above the average level for the last five years, despite the reduction of the area under cotton in 1953/54.¹³ The expansion was therefore the result of an appreciable improvement in unit yields, which rose from 492 to 533 kilogrammes per hectare.

Cacao production, estimated at 152 thousand tons, increased by 11 per cent. In this case, too, higher unit yields

¹¹ The coffee trade year in Brazil begins on 1 July and ends on 30 June.

¹² The crop for an agricultural year, for example 1952/53, is harvested during the first six months of the second year mentioned, in this case 1953.

¹³ The area under cotton increased in the State of São Paulo and decreased elsewhere.

contributed decisively to raising the volume of the harvest. The better yields were in turn determined by the opening-up of new plantations and by good weather. The cacao shortage on the world market, together with greater demand, particularly from European countries, enabled exportable surpluses to be sold at satisfactory prices.

Sisal-hemp is another agricultural product which has been acquiring increasing importance. During 1954 exports of this commodity made a substantial recovery in relation to 1953. But such progress lacks significance, since this crop makes only a minor contribution to the diversification of Brazil's exports.

2. Mining

Mining activities remained at practically the same level as in 1953, despite the vigorous expansion of the Brazilian economy. In the following paragraphs an analysis will be made of the factors which hinder or encourage each of the main elements of mining production.

(a) Iron ore

Iron ore constitutes the principal mineral wealth, Brazil's resources being the largest in Latin America; "commercial" reserves amount to 16,000 million tons of ore, plus 36,300 million tons of "potential" reserves, so-called because the deposits are inconveniently located or of low grade. In 1954, the output of iron ore amounted to 2.2 million tons as compared with 1.9 million tons in 1953. The national iron and steel industry consumes less than is currently produced and at present Brazil has an exportable surplus of iron ore. This surplus might well be increased now that transport difficulties have been solved in the Vale do Rio Doce area, where the richest deposits exist. Exports, however, cannot be expanded because Brazil is a marginal supplier of iron ore for consumer countries.

(b) Bauxite

The plant under construction in the vicinity of Sorocaba, which is shortly to produce 10 thousand tons of aluminium annually, will give a strong impetus to bauxite production at the Poços de Caldas mines. The new plant will also have at its disposal a hydro-electric power station at present being installed on the Juquió river. Since 2,500 tons of aluminium are already being produced in the State of Minas Gerais, Brazil is well on the way to satisfying total domestic consumption, estimated at just over 15 thousand tons.

(c) Coal

During the last four years coal production has remained almost constant at about 2 million tons. The Plano Nacional do Carvão aims at raising output to 3 million tons.

Prospecting in 1954 showed that coal reserves exceed the 500 million tons estimated in the *Economic Survey of Latin America, 1953*. Large anthracite deposits have been discovered in Belo Horizonte and at Criciúma in the State of Santa Catarina; exploratory drillings in Rio Grande do Sul have revealed the existence of about 40 million tons which it is planned to utilize for the thermo-electric plant at Charqueadas.

Because of its low calorific power and the primitive mining methods employed, domestic coal is an expensive source of energy. During the post-war period, the competitive status of Brazilian coal in relation to other fuels, mainly imports, became still more precarious as a consequence of the over-valuation of the cruzeiro. During recent years domestic coal has been consumed only by the steel industry and the railways. In both cases its continued use is explained by non-economic factors, such as legal regulations, for example.

The recent modifications to the exchange system resulted in an improvement in the relative price of domestic coal. Broadly speaking, the prospects for greater coal consumption depend mainly upon the implementation of the Plano Nacional do Carvão, which provides for the mechanization of mining and for the increasing use of coal to generate electric power.

(d) *Petroleum*

After declining during the first quarter of 1954, by the end of the year petroleum production recorded a 7 per cent increase in relation to 1953 and totalled 151 thousand cubic metres. Prospecting, which was carried on more intensively than in 1953, resulted in a considerable extension of the operations at the Bahia oil field.

Nevertheless, progress in refining was still more pronounced. The Capuava and Manguinhos refineries, with a joint capacity of 6,245 cubic metres daily, were completed during the year, so that Brazil's aggregate capacity rose to about 2,750 cubic metres daily. Work on the construction of the Cubatão refinery, with a daily capacity of 4,760 cubic metres, and the enlargement of the Mataripe refinery, were almost finished in 1954.

The future development of Brazil's economy is intimately linked with that of petroleum, which, at the same time, constitutes one of its pressing current problems.

Petroleum consumption grew at an annual average rate of 12.6 per cent during the period 1939-52 and even faster during the immediate post-war period. One of the two fundamental factors encouraging higher consumption is industrialization; the other is an exchange policy which has led to the replacement of other sources of energy by petroleum.

The increase in the consumption of petroleum and its derivatives has resulted in a parallel rise in imports, since domestic production is insignificant. It is not surprising, therefore, that liquid fuels constitute the most rapidly-growing group of commodities among Brazil's imports. If a rate similar to that of recent years is maintained, an exceptionally high share of exchange availabilities will have to be devoted to the purchase of petroleum and petroleum derivatives.

The rate of growth of consumption recorded over the 1939-52 period would be very difficult to maintain in coming years, even if Brazil's economy were to continue developing with the same intensity. A reduction in consumption may arise from the relatively higher price of petroleum caused by the modifications in the exchange system and the development of other sources of energy, mainly hydro-electric. A recent estimate of the growth of the demand for liquid fuels, by sectors, supports the foregoing statement. According to incomplete projections, the aggregate rate of growth would be 9.4 per cent in 1952-62,

so that consumption would have to expand from 6.9 million cubic metres in 1952 to 17.4 millions in 1962.

However, if imports had to meet the same proportion of the future demand as at present, about 30 per cent of the capacity to import would be required for liquid fuel imports by 1962. It is therefore particularly important to survey petroleum production and refining capacity in Brazil, for which prospects are undoubtedly promising. It is estimated that by 1962 production of crude should be between 1.74 million and 5.8 million cubic metres, according to different hypotheses of growth; it is probable that refining capacity may rise to 11.6 million cubic metres. Moreover, Brazil will probably transport a larger share of its petroleum imports in nationally registered shipping.

If the capacity to import in 1962 were 28 per cent higher than in 1954, according to the above assumptions, from 15 to 20 per cent of this capacity would be absorbed by imports of petroleum and petroleum derivatives. It should be recalled that in 1953 liquid fuel imports rose to 19 per cent of all imports.

The pressing need to accelerate domestic output, in view of the probable incidence of the burden of petroleum purchases on the balance of payments in the near future, has led to suggestions that the present system of petroleum exploitation should be reorganized. The controversy which had begun in 1953, when Congress discussed the draft bill for creating the Government monopoly known as Petrobras (Petroleo Brasileiro S.A.), was thus renewed. Once again the participation of foreign capital was voted down and this Government organization began operations in August without any changes in its structure, aims, functions, or prerogatives.

3. *Industry and energy*

Industrial output rose by 9 per cent in 1954, which implies that the rate of growth during recent years was maintained, despite various adverse factors. The shortage of electric energy was outstanding among these obstacles; although the scarcity was less acute than in the preceding year because new power stations entered production, rationing still had to be re-introduced.

The various branches of industry were affected in different ways by devaluation and the differential rates of exchange. In some cases, these factors proved an effective form of protection against foreign competition. Mechanical industries, for example, considerably raised their output, while imports of machinery decreased by 60 per cent. In contrast, the preferential treatment given to imports of certain articles, the difficulties of obtaining scarce raw materials, or a rise in raw material prices, affected several industries including paper, rubber, footwear and foodstuffs. The especially favourable conditions for newsprint imports paralysed various projects for expanding domestic production.

Heavy industry was one of the most active branches. The output of 1.1 million tons of steel ingot represented an increase of just under 10 per cent over 1953. In February 1954 the second blast furnace at Volta Redonda entered production, thus enabling this integrated plant to raise its capacity from 450 to 710 thousand tons of steel. This completed the first stage of the so-called Plano de Milhão, the target of which is the production of one mil-

lion tons annually. To attain this figure, two new blast furnaces and one coke oven battery are still required, and the Government therefore increased the capital of the Companhia Siderurgica Nacional by 500 million cruzeiros.

The development of the iron and steel transforming industries was also accelerated. The production of motor vehicles is already a reality and for programming purposes the Government set up the Comissão Executiva da Indústria de Materiais Automobilísticos. Marked progress was also made in the manufacture of motors and electrical equipment.

Cement output reached 2.4 million tons, but although it was 20.9 per cent higher than that of the preceding year, domestic production is still far from meeting Brazil's real needs.

A recovery took place in the textile industry, output increasing by 24 per cent in relation to 1953. On the other hand, rubber production—the value of which ranks fourth in importance among industrial activities—passed through a difficult period, owing to a shortage of imported raw materials, those from domestic sources being insufficient to meet demand. Progress was made by the chemical industry and the installation of two new plants is almost complete. One of these, at Cubatão, will produce an annual 127 thousand tons of ammonium nitrate, while the other, at Rio de Janeiro, will have a yearly capacity of 145 thousand tons of caustic soda.

In 1954 installed electric power increased by 715 thousand kW when several small and three large plants began

operations. The large power plants comprised the second unit of the thermo-electric power station at Piratininga in São Paulo, with 200 thousand kW, and two hydro-electric plants, one at Nilo Pecanha in the State of Rio de Janeiro, with 330 thousand kW, and another at Paulo Afonso, in the north-east, with 120 thousand kW. This last represents the first stage of a Government electrification programme using the San Francisco river, which will provide a total installed capacity of 540 thousand kW. The building of other plants, with an estimated aggregate capacity of 115 thousand kW, was also practically completed during the course of the year.

Although generating capacity rose from 2.1 to 2.4 million kW,¹⁴ or 14.3 per cent, installed power is still insufficient for domestic requirements. The shortage is particularly acute in the south-eastern area, mainly in the States of São Paulo and Rio de Janeiro and in the Federal District.

In 1954, the first steps were taken to solve this problem on the national level through the establishment of Centrais Elétricas Brasileiras S.A. (Electrobras). This organization will be the instrument used by the Government to fulfil the objectives of the Plano Nacional de Electrificação, which was also presented and adopted during the year. Efforts will be made to eliminate the present shortage of energy in Brazil through Electrobras in the sphere of electric power, through Petrobras in that of petroleum and through the Plano Nacional do Carvão.

¹⁴ Brazil has the highest installed capacity in Latin America; 1.79 million kW hydro-electric and 0.62 million kW thermo-electric.

Chapter IV

CENTRAL AMERICA¹

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. General considerations

The economic situation in Central America was principally characterized in 1954 by favourable terms of trade, which arose from further price increases in such staple exports as coffee, cotton and cacao. As a result of their positive influence, gross income continued to expand, while the gross product in real terms remained at a similar level to the previous year, thus reflecting the stability of agricultural production. Foreign demand, therefore, was still the dynamic element in the Central American economy and primarily accounted for the standard of income and economic activity attained in 1954.

Although long-term prospects may have been influenced by lower prices quoted since August for the area's main export, coffee, by the end of 1954 price levels were still above the average for the preceding year. Their decline did not therefore affect the domestic economy during 1954 and overall activity was maintained, notably in trade, certain agricultural exports and manufacturing. It should be emphasized that new activities in this last sphere, such as the production of cement, powdered milk and wood-working, etc., expanded to a greater extent than the older-established industries, in which progress was comparatively slight.

This general situation was not uniformly apparent in all five Central American countries. In Guatemala and Honduras, the quantum of agricultural production and the gross product fell below the 1952 and 1953 levels; conversely, in Costa Rica, El Salvador and Nicaragua the former was higher than in 1953, while the gross product and gross income also increased in El Salvador. Although statistical data are not available, it is estimated that Nicaragua's gross product was comparable to that of 1953, or possibly even larger.

The monetary and payments situation in 1954 followed the same trend that had become apparent by the end of 1953, when there was a modest expansion of the money supply; monetary reserves inclined towards stabilization because of the equilibrium in the balance of payments. Although by the close of 1954 monetary reserves were the same as at the end of 1953, during the course of the year they tended towards a downturn. Despite their present satisfactory level and export price prospects for the 1954/55 coffee, cotton and cacao crops, this downward movement, viewed from the long-term angle and in conjunction with symptoms of a weakening in coffee prices,

¹ In this *Economic Survey*, developments in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua are examined as a whole, because of the similarity of the economies and problems of these countries, and because an economic integration programme for Central America is being undertaken under the auspices of the Central American Economic Co-operation Committee.

suggests that the operation of monetary reserves should be adjusted to well-defined fiscal, economic and credit policies.

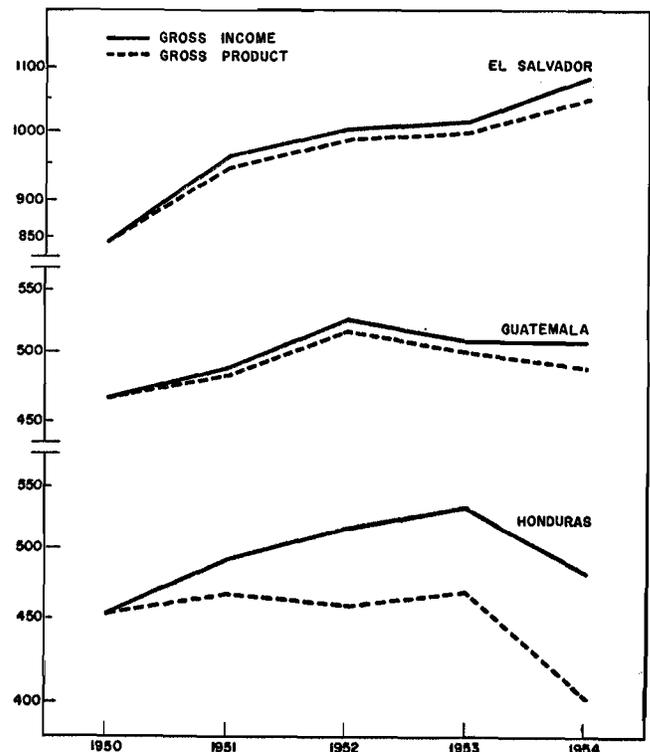
2. Gross product and gross income

Central America's gross product seems to have grown less rapidly during the last two years than over the period 1945-52. On the whole, a tendency towards stabilization has recently appeared, and even an appreciable downward trend in some countries. Guatemala's real gross product fell by 3 and 2 per cent in 1953 and 1954, respectively; in *per capita* terms, these reductions were still more marked. In Honduras, excluding an increase of 2.1 per cent in 1953, the gross product has been decreasing since 1951, and reached its lowest level in 1954, when it was 14 per cent less than in 1953. Conversely, in El Salvador the gross product expanded by 24 per cent between 1950 and 1954, and by 5 per cent from 1953 to 1954. These increments raised the *per capita* gross product, except in 1953, when it declined slightly.

Chart XXV

CENTRAL AMERICA: GROSS PRODUCT AND GROSS INCOME, BY COUNTRIES

Millions of monetary units of each country at 1950 prices
(Semi-logarithmic scale)



Nevertheless, if the favourable effect of the terms of trade is taken into account, in 1954 the gross income of the five countries as a whole seems to have risen above the 1953 level. But its rapid rate of growth in 1945-52 was not maintained, since no change was recorded in the gross income of Guatemala and that of Honduras fell by about 10 per cent in relation to 1953. Conversely, in El Salvador, a country where statistics are available, gross income increased by about 7 per cent. For the area as a whole, in 1954 the terms of trade improved by 18 per cent in relation to the previous year. They provided El Salvador with a favourable balance of 35 million colones at 1950 prices (twice as large as in 1953), and Honduras and Guatemala with assets amounting to 16.5 per cent and 18.9 per cent of their gross income, respectively.

The favourable terms of trade, for which the immediate outlook is uncertain, have thus proved to be the element that has recently upheld the region's level of activity, since agricultural production for export, with the exception of cotton, showed a low elasticity in relation to the fairly high prices for its principal items that still prevailed on the world market in 1954. This elasticity barely exceeded that of 1951, and that of 1952 and 1953 by little more than 2 per cent.

3. Foreign trade and the balance of payments

The persistently favourable evolution of export prices raised their general level in 1954 to about 20 per cent above the figures for 1953 and to almost 51 per cent above those for 1950; as a result, the effects of a reduction in the quantum of exports on their current value were offset and the upward trend followed by foreign trade in former years was maintained.

But, by August 1954, coffee prices had already begun to fall sharply and by December were 22.4 per cent lower than in July, although they were still 17 per cent higher than the average 1953 price. On the other hand, the price decline during the second half of the year was not reflected in those exports during 1954 which corresponded to the 1953/54 crop.

Despite its minor share in aggregate exports, cacao exerted some influence on the upswing of export prices, since cacao quotations in 1954 registered an increase of 60 per cent in relation to 1953 and 100 per cent over 1950. Prices for cotton and lumber likewise rose by 10 and 8 per cent respectively, while those for abaca and bananas declined.

Import prices stood only 1.7 per cent higher than in 1953, so that the improvement in the terms of trade amounted to 17.8 per cent. The quantum of exports, however, assessed in dollar values at constant 1950 prices, fell by 7.6 per cent, mainly because of the 5.4 per cent contraction in coffee exports.

Banana exports fell by 10.8 per cent with respect to 1953, in marked contrast with those of cotton, which, owing to shipments from Nicaragua and El Salvador—particularly the former—achieved a 19.3 per cent improvement over the previous year's level.

Despite the smaller export volume, the capacity to import was 8.8 per cent higher than in 1953, thanks to the favourable evolution of the terms of trade.

These factors, combined with Central America's economic development programmes, raised the quantum of imports to 7.3 per cent above the already high figure of

1953. Imports of foodstuffs, particularly in the case of El Salvador, remained large; as far as can be assessed from the limited data available, the same was true of capital goods imports, mainly because of the economic development projects that are being carried out in this area.

The balance of payments for Central America as a whole inclined towards equilibrium in 1954, although this is not true of each individual country. For Costa Rica, Guatemala and Nicaragua, there was apparently an aggregate debit balance, while El Salvador and Honduras showed an opposite tendency.

4. The monetary and price situation

The year 1954 witnessed certain changes in Central America's monetary situation and policies, symptoms of which had already appeared at the end of 1953. Monetary policy appears to have been more closely allied with economic development programmes, so that in granting credit to the private sector a more liberal approach was adopted and fuller advantage was taken of the area's high capacity to import. Consequently the money supply continued to grow at a slightly higher rate than in 1953, while the aggregate monetary reserves of the five countries ceased to expand, former trends thus being reversed.

This increment in the money supply, which was recorded in all five countries of Central America, arose from internal factors, credit to the private sector being its almost exclusive cause. From September 1953 to September 1954, these loans increased by 20 per cent in Costa Rica, 15 per cent in El Salvador, almost 30 per cent in Guatemala and 40 per cent in Nicaragua. In Honduras, however, private credit remained at practically the same level as in 1953. A different course was followed by loans to the public sector, which in 1954 showed a fairly definite, though modest, tendency towards expansion in Costa Rica and Honduras only. On the whole, fiscal policy in 1954 had a neutralizing effect upon the money supply.

During the course of the year, the aggregate monetary reserves of the Central American countries followed a downward trend, reaching their minimum during September, when they amounted to 13 million dollars less than in the same month of 1953. Towards the end of 1954, however, coffee and cotton exports were resumed, at high prices, with the result that by December monetary reserves had reached the same level as in the corresponding month of 1953. The decline in reserves was most pronounced in Costa Rica and El Salvador.

Domestic prices continued to rise during 1954, although they did not exceed the previous year's moderate rate, which varied from 4 to 8 per cent, according to individual countries. In general, they continued to feel the pressure of consumer demand, under the influence of an increment in income accruing from the export prices of coffee, which, despite their fall from peak levels, remained high.

II. BRANCHES OF PRODUCTION

1. Agriculture

Since 1951, the quantum of aggregate agricultural production for the five countries has tended to remain stable, and in 1954 it fell slightly in relation to 1953, from 373 million dollars (at 1948 prices) to 369.5 millions. Lower production in Guatemala and Honduras was responsible

for this decline. The evolution of agricultural production was thus unable to keep pace with the rate of growth of the population, which by 1954 was 7.5 per cent larger than in 1951.

Agricultural output for the domestic market, totalling 153.9 million dollars at 1948 prices, was 5 per cent below the 1953 level. The general causes of the decline included the effects of hurricanes in Honduras, the expansion of cotton plantations in Nicaragua at the expense of other crops, the reduced support given by Costa Rica in 1954 to the food production programme and the widening of the disparity between production and consumption which already existed in El Salvador.

The problem created by lower production for domestic consumption was solved by an increase in imports of foodstuffs, particularly striking in the case of El Salvador, where such imports in 1953 were nearly three times larger than in 1948 and almost twice as great as in 1950. Immediate prospects for this branch of production are not very encouraging, and, if the expansion registered in Nicaragua is excluded, none of the other countries has been able to produce at the same rate as that of demographic growth in the last four years.

The incidence of this factor on basic food supplies for the domestic market caused some shortages in the whole area. This is even more apparent if Costa Rica is excluded, because consumption there is comparable to that of Mexico, although it is still far from reaching the levels prevailing in those Latin American countries where nutritional standards are highest.

Production for export presents a somewhat different picture, as in 1954 it expanded in the aggregate by 2.4 per cent in relation to 1953. Nevertheless, since 1951 a definite trend towards stabilization has been apparent.

Apart from the fluctuations in coffee prices during 1954, the outstanding development in relation to export crops was the expansion of cotton-planting in El Salvador, Guatemala and Nicaragua. In this last country, 80 thousand hectares were planted in 1954, so that the area under cotton in 1953 was doubled. This increment had repercussions upon Nicaragua's agriculture. Small farms producing staple foods tended to disappear from cotton-growing areas, where large consolidated enterprises for the mechanized production of fibre are now becoming the rule. Consequently the number of landless rural wage-earners increased, while the production of foodstuffs declined, the commodities most seriously affected being apparently maize and meat. The requirements of large-scale cotton plantations encouraged mechanization, so that Nicaragua at present possesses 2,500 tractors, as well as some 20 cotton harvesters, which had to be imported to relieve the labour shortage created by such rapid development.

Greater cotton production in El Salvador during the last two years has been based not so much on the enlargement of the area under cultivation as on improved yields, obtained by the exclusive use of certified seed distributed by the Cooperativa Algodonera, correct treatment with insecticides and the use of fertilizers.

In 1954, Central America's coffee production fell well below expectations. Flowering and berry development seemed to promise an excellent crop, but the heavy rains following the hurricanes which swept the Caribbean area

just as the coffee berries were ripening caused substantial losses, particularly in Guatemala.

The production of bananas and abaca for export declined in Guatemala on account of other problems affecting the producer company, and in Honduras because a prolonged strike among the company's employees hampered export operations. The latter country also suffered from the effects of hurricanes.

Structural variations largely accounted for the divergent trends followed by agricultural production for the domestic market and for export. In the first place, differing potentialities and resources have, in the past, led certain countries to specialize in particular export crops. Thus, while the general rule is that the five countries grow the same export crops, individual characteristics are apparent. In Costa Rica and Guatemala, coffee and bananas account for 45 and 63 per cent respectively of the aggregate quantum of agricultural production; whereas 59 per cent of total production in El Salvador is contributed by coffee and cotton. In Honduras, bananas constitute 42 per cent of production, while in Nicaragua 50 per cent is represented by coffee, cotton and sesame. Secondly, the ratio of renewable natural resources to population varies considerably from country to country and even between different districts of the same country, so that demographic pressure has set the pattern for the intensity, conditions and methods of cultivation. In Honduras and Nicaragua, where plenty of land is still available, large-scale farming is the rule, and it is here that the biggest areas per unit of exploitation are found. In El Salvador and on the central plateau of Costa Rica, agriculture is relatively more intensive and there is a greater sub-division of land. The highlands of Guatemala, inhabited by an indigenous population which has not yet been entirely absorbed into the country's economy, are characterized by the many small farms which help to make living conditions still more precarious for the rural population. El Salvador, where 58 per cent of the farm area is already under crops or artificial pasture and where the population density stands at some 100 inhabitants per square kilometre, provides the clearest evidence of a rural working-class which is fully employed for only a short period of each year.

Agricultural techniques and practices also vary from country to country, although primitive and rudimentary processes are widespread and mechanization has yet to attain any significant proportions.

Substantial local differences in methods of stock-breeding also exist. There are vast tracts of unfenced natural grasslands and woods where cattle are turned out to graze; there are the ranches of western El Salvador, of Guanacaste in Costa Rica and of Nicaragua's lake district, which have artificial pastures, fenced in and in some cases even irrigated; there are the dairy farms on Costa Rica's central tableland and near the capitals of the other countries.

Again, techniques vary for the production of export commodities, which generally receive more care than those for domestic consumption. Thus coffee cultivation is much more progressive than elsewhere in the Santa Ana district of El Salvador and on the central plateau of Costa Rica, where average yields are higher. Cotton plantations, although production is larger in Nicaragua, appear to be better organized in El Salvador, thanks to the Cooperativa Algodonera, and now constitute a more stable type of agriculture.

Aid to farmers and planters likewise differs from one country to the other, as regards systems of agricultural credit, experimental stations and guarantee prices. The divergent courses followed by official intervention in these spheres, and the varying degrees of intensity, have also imparted characteristic features to the agricultural development of each country.

The coffee-planters of the five countries have formed an association, but their influence is most evident in El Salvador, since they take part in the management of State banks, including the Central Bank, while in the *Compañía Salvadoreña del Café* they have a fund for regulating domestic prices which during the recent period of peak prices has been used for credit to planters and processors, based on future crops. Cotton planters and stock-breeders have also organized associations in El Salvador, while sugar producers have done so both in Costa Rica and El Salvador.

Experimental stations exist in all five countries, some of them in association with the United States Department of Agriculture; they differ widely, however, as to their length of standing, endowments, programmes and the work accomplished to date. Items which have received preferential attention and in which tangible results have been achieved, include the improvement of wheat and maize yields in Guatemala; the increase of coffee, maize and rice yields, as well as research on soil conservation, in El Salvador; and experiments in the improved breeding of native cattle carried out in Costa Rica and Nicaragua. Services for disseminating technical knowledge have been established for the longest period and are most efficiently organized in Costa Rica, through the *Servicio Interamericano de Producción Agrícola*, and in El Salvador, which has a service of its own. Some progress has also been made in Honduras through the *Servicio Técnico Interamericano de Cooperación Agrícola*, while the *Servicio Técnico Interamericano de Nicaragua* began work in 1954.³

Credit facilities for farmers who grow export crops are satisfactory in all five countries. Those available to producers of domestic consumer goods are on a reasonably advanced basis in Costa Rica, where the *Juntas Rurales* affiliated to the Central Bank issue loans on suitable terms. Corresponding institutions in the other Republics, however, although they are acquiring greater experience and are giving increasingly better service, have less tradition behind them and are not so efficient.

Other factors influencing agricultural development were the minimum price and storage programmes of the Governments of Costa Rica, El Salvador and Guatemala for certain basic consumer goods, principally maize, beans and rice. The *Consejo Nacional de Producción de Costa Rica*, which was the first of such programmes established in Central America, was able in a few years to eliminate deficits for domestic consumption, to maintain stabilization reserves and to accumulate small exportable surpluses.

2. Industry

The data available on industry in Central America, although incomplete, indicate that a further expansion took place in output during 1954 for the five countries as a whole.

The cement industry followed up a comprehensive building programme aimed at achieving a greater degree of

self-sufficiency in a relatively short period. Nicaragua installed a second kiln which raised the country's annual capacity from 19 to 49 thousand tons and that of Central America as a whole from 138.5 thousand to 168.5 thousand tons. This capacity is still insufficient to meet the Central American demand, which exceeds 200 thousand tons annually, but work is proceeding on the establishment of another kiln for 49.5 thousand tons, scheduled to begin operations in 1955, near the port of Acajutla in El Salvador. If the kiln is completed within the appointed time and another of 30 thousand tons planned for Honduras is built, the over-all capacity should rise to 248 thousand tons. Some Central American countries should temporarily be able to provide small surpluses to meet the demand elsewhere in the area, particularly in Costa Rica.

In 1954, Central America's cement consumption, which increased from 166 thousand tons in 1951 to 210 thousand tons in 1953, continued to expand in all the countries, except Guatemala, where the smaller market caused an 8 per cent decrease in production. Aggregate output of cement rose from 113.5 thousand tons in 1953 to an estimated 138.4 thousand in 1954. Nicaragua's available capacity, and the enlargement of the plant in El Salvador, should together lead to a reduction of imports, which in 1954 still stood at the high level of some 100 thousand tons, and should enable Central America's cement output to exceed the 1954 level by 35 and 60 per cent during the next two years respectively.

Although forest industries are in the initial stage, their recent progress is of interest. A plywood mill, which has been operating in Guatemala since 1950, produced 2.5 million board feet of three-ply wood between January and October 1954. Another plant of the same type was installed at Puerto Castillo, Honduras, with a monthly capacity of up to 500 thousand board feet. It entered operations in July with a production of 100 thousand board feet of quarter-inch cedar and mahogany. Production is expected to expand to 300 thousand feet monthly, once skilled personnel have been trained and the processes have been organized on a routine basis. Both mills sent a major part of their output to Cuba and El Salvador, but the export volume did not justify operation at full capacity. The extension of the Central American market—which is at present partly supplied by imports from Sweden, Japan and other countries—would provide a basis for the better utilization of existing plant. In Costa Rica, production of kraft from abaca fibre refuse increased to 60 tons monthly in 1954.

Some of the main projects for the manufacture and processing of dairy products were completed. In 1954, a powdered milk factory, built with the co-operation of UNICEF, was opened in Nicaragua, with a capacity adequate to satisfy most of the domestic consumption; Costa Rica also aided by UNICEF, began to build another such plant, which should be ready to begin operations in 1955 with an hourly output of 350 pounds. A pasteurization plant with a daily processing capacity of 20 thousand litres is about to enter production in Guatemala, while Honduras and El Salvador are also considering the establishment of powdered milk factories.

The deficit of fats, which is still substantial, amounted to about 10 thousand tons in 1953. Central America's production capacity is high, quantitatively speaking, but modifications in the processing and quality of these com-

³ All these agencies are financed by contributions from the United States Government and from the countries concerned.

modities are required, to enable them to meet a larger proportion of total consumption. To this end, new plants were established, and others are being built, which will raise the volume and standard of production in the course of the next few years. In 1954, a new edible-oil refinery was installed in Costa Rica, working mainly with palm oil from Africa. Some of the output of a vegetable fat plant recently built in Costa Rica with a monthly capacity of 300 thousand pounds, was exported to El Salvador. In Nicaragua work is in progress on a modern plant, to enter production by 1955, with complete equipment for the manufacture of feed concentrates for livestock.

In 1954, the textile industry was obliged to face higher domestic prices for cotton fibre and also, in some countries, a growing volume of imports. Production remained at the low levels of the preceding year, although in El Salvador an increment estimated at 7 per cent was possible, thanks to protective measures, which are stricter than those in the other four countries, and to an improvement in the range and quality of the textiles produced. In Costa Rica, long-term prospects for this industry improved after a new scale of tariffs was adopted in April 1954, but textile imports in quantities calculated to meet the market demand for one or two years tended to limit production.

The mechanization of the shoe industry has taken place in some Central American countries at a comparatively rapid rate, although hampered by difficulties in organization and marketing. In 1951-52, two modern factories, with an aggregate capacity estimated at 1.5 thousand pairs daily, were installed in El Salvador; in Costa Rica the first mass production shoe factory is being built, as well as a modern tannery to supply the required raw materials.

Other projects aimed at producing entirely new commodities in Central America were either completed in 1954 or were almost ready. A factory for glazed porcelain was installed at Guatemala City with a maximum capacity of 10 thousand tiles daily; in Costa Rica work is proceeding on a plant to manufacture yeast from sugar molasses, which, in its first stage, will produce an annual 700 tons of yeast for fodder. Progress was achieved in the manufacture of coffee extracts in Costa Rica and, particularly, in El Salvador. These projects are more likely to succeed if their products can be sold throughout Central America, where none of them have previously been manufactured.

3. Energy

Although the average annual rate of growth of electric energy output has fluctuated from 8 to 15 per cent in the different countries of Central America since the end of the Second World War, energy requirements have invariably exceeded generating and distribution capacity, so that a scarcity has prevailed in most of these countries.

The new requirements for energy arising from the accelerated rate of over-all development resulted in an expansion of demand, despite the high cost of the service in most countries, and rationing was necessary. In 1954, consumption restrictions were particularly severe in Costa Rica, where efforts were made to secure a maximum economy in electricity during the five-month period from January to May, when the shortage is most acute.

Construction of new sources has lagged behind the demand in all five countries to varying degrees, with the result that thermal plants have been installed for public

utility services and small diesel plants for industrial use. This practice, together with heavy distribution losses, has raised costs, so that prevailing high rates—except in Costa Rica and, since 1954, El Salvador—have represented an additional brake on consumption.

In recent years, some of the countries have undertaken the construction of relatively large installations to improve the electricity supply. In 1954, El Salvador completed the first stage of a hydro-electric development plan with the installation of a first 15-thousand kW unit on the Lempa river, which will provide power for the areas of San Salvador and San Miguel. When it began to operate, some of the thermal plants in the San Salvador network were withdrawn from service and held as a reserve; simultaneously tariffs were lowered under the terms of an agreement between the Comisión Ejecutiva Hidroeléctrica del Río Lempa and the public utility company to which the energy will all be sold. In the city of San Salvador the rates were reduced by 15-25 per cent for fixed quota services, by 5-25 per cent for household use, by 3-20 per cent for commercial services and by 25 per cent for power. An increase in electricity consumption was the immediate consequence of these lower charges, of regular voltage and of the abolition of rationing at the hours of peak demand. It was expected that the second Río Lempa unit, also of 15-thousand-kW capacity, would be installed early in 1955, and preparations have begun for providing the new system with a capacity of 45 thousand kW. A survey has already been made of the transmission lines required for centres of population located within an economically feasible radius of supply; these constitute an important part of the programme.

In Costa Rica, the construction of greater facilities during 1954 was mainly aimed at solving the serious energy crises which affect the San José network during periods of drought. Thermal plants were installed, which, because they are built quickly, can cover the power deficit, although at a high operating cost, while the hydro-electric project already under construction is being completed. In 1954, the chief public utility company installed a 5-thousand-kW thermal unit in the San José area, and plans to construct a second unit of the same size early in 1955, before the supply situation deteriorates. Because, at the close of 1953, the existing deficit amounted to 7 thousand kW, the margin of surplus capacity as from 1956 will be small or even non-existent. The Instituto Costarricense de Electricidad is therefore planning to provide installed capacity for a further 10 thousand kW, to be generated by two diesel units of 5 thousand kW each, one of which will be brought into service in 1955 and the other in 1956. Furthermore, the Instituto has already begun the engineering work for the La Garita hydro-electric project, which will harness the waters of the Río Grande by means of a gravity intake dam with a 59-metre-long weir and a maximum height of 18 metres. This power station will have an aggregate capacity of 30 thousand kW, in two units of 15 thousand kW each, of which the first is scheduled to enter production by the end of 1956 and the second in 1957-58.

The second 3-thousand-kW unit of the hydro-electric works at El Salto, in Guatemala, as well as other small plants which in the aggregate represented an additional 895 kW, entered operation in 1954. Nicaragua's capacity expanded by 3 thousand kW with the inauguration of a new diesel unit at Managua, but the distribution network

is still inadequate to meet requirements. Generating capacity in Honduras remained unchanged.

Because the distribution systems in most of the Central American countries are incapable of carrying present loads, it is essential that whenever important electrification projects are put into execution, transmission and distribution lines and networks be renewed and extended. Some countries, among them El Salvador, have already carried out or are planning to embark upon undertakings of this kind. The renovation and expansion of distribution networks is particularly necessary in Costa Rica, Honduras and Nicaragua, where existing transmission lines cannot distribute the present energy output.

In the aggregate, Central America's generating capacity increased between 1953 and 1954 from 162,342 to 189,237 kW (approximately 28 thousand kW), that is, by 16.6 per cent. El Salvador accounted for more than half this total, since its capacity rose from 39,042 kW in 1953 to 54,042 in 1954, thus expanding by 38.5 per cent. The additional capacity installed in the other countries of the area represented an increment of 13.6 per cent in Nicaragua, 10.4 per cent in Guatemala and 10.1 per cent in Costa Rica.

In 1954, the aggregate output of electric energy in Central America rose by 10.2 per cent, amounting to 516,120 kWh. The new plant on the Lempa river increased the production of the San Salvador system by 51 per cent, and that of the Managua network rose by 25.6 per cent. Although the volume distributed was less, both increments were higher than the normal rate of growth of the demand for electricity, and reveal its elasticity within the framework of Central America's economic life, when adequate power sources are available.

Plants at present projected or in course of construction will raise installed capacity by 65 per cent, or to 312,117

kW, by 1957/58. In Guatemala, the additional 18 thousand kW will all be generated by hydro-electric sources and are comprised in a series of small projects, none of which exceeds 5 thousand kW. Second and third generating groups, of 15 thousand kW each, will be added to the Río Lempa plant in El Salvador. A second 5-thousand-kW diesel unit will be installed in Costa Rica at San Antonio; two more with the same capacity are planned by the Instituto Costarricense de Electricidad; finally, a 30-thousand-kW unit for the hydro-electric system of La Garita is to be provided. In Nicaragua, the Managua public utility company plans to build a thermal plant on Lake Managua, with a potential capacity of 25 thousand kW.

The Departamento de Electrificación Nacional de la Dirección General de Obras Públicas de Guatemala is considering the Jurún-Marinalá hydro-electric project, which would mean a net addition of 40 thousand kW to this country's generating capacity. Within a general development and finance programme for Honduras, a project is being planned to utilize the Lindo river, which, according to surveys already completed, would yield from 24 to 27 thousand kW. Preliminary studies of the Tuma river in Nicaragua indicate that it could supply an installed capacity of about 50 thousand kW.

Other longer-term projects include the plans for Guarambala for a joint service to El Salvador and Honduras, by which a maximum capacity of 100 to 120 thousand kW could be obtained; secondly, the plans to use the waters of Lake Nicaragua, which could produce from 100 to 170 thousand kW, are apparently technically and economically feasible. They would require governmental liaison at the Central American level, and over the longer term would serve as a basis to meet the electric power needs of this area.

Chapter V

CHILE

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *Income and investment*

Judging by figures for the production of goods, in 1954, Chile's gross product appears to have remained at the low level of the preceding year when there was a sharp downward movement in relation to 1952. A slight decline thus took place in the *per capita* gross product.¹ Nor was any great variation apparent in available goods, although the investment coefficient of the latter fell from 18.5 per cent in 1953 to 13.2 per cent in 1954. But the fall appears smaller if variations in stocks are excluded.² Imports of capital goods reached their lowest level during the last five years.

The changes in income distribution did not favour any increase in investment, mainly because they occurred within an environment of accelerated inflation. The deterioration in real wages which began in 1953 continued throughout 1954. Furthermore, the share of the public sector in gross income declined in real terms. Thus two of the sectors which contributed most to stimulating the inflationary process were adversely affected by it.

In principle, a redistribution favouring the higher-income brackets, whose savings capacity is greater, might have resulted in higher investment. However, the peculiarities of Chile's economy and the rapid rate of inflation produced effects contrary to those which might have been expected. Among other factors, the limitation of the domestic market, the dependence of national industry upon foreign raw materials, high production costs and the competition of imports—fostered at certain periods by overvaluation of the Chilean peso—have all discouraged productive investment. Inflation has become a stimulus to speculative investment and to the consumption of luxury goods.

As regards the evolution of the various sectors, there was a slight decline in agricultural production after the 7 per cent increase during 1953; mining production also decreased and was adversely affected by the terms of trade. But the most significant change occurred in the industrial sector, where there was a slackening of the steady progress achieved in previous years. The 2.6 per cent increment in the gross product contrasts with that of 10 per cent obtained in 1952-53.

2. *The balance of payments and foreign trade*

(a) *The balance of payments*

The balance of payments closed with a deficit of about 20 million dollars at the end of the year, mainly as the result of an increase in remittances abroad of interest and

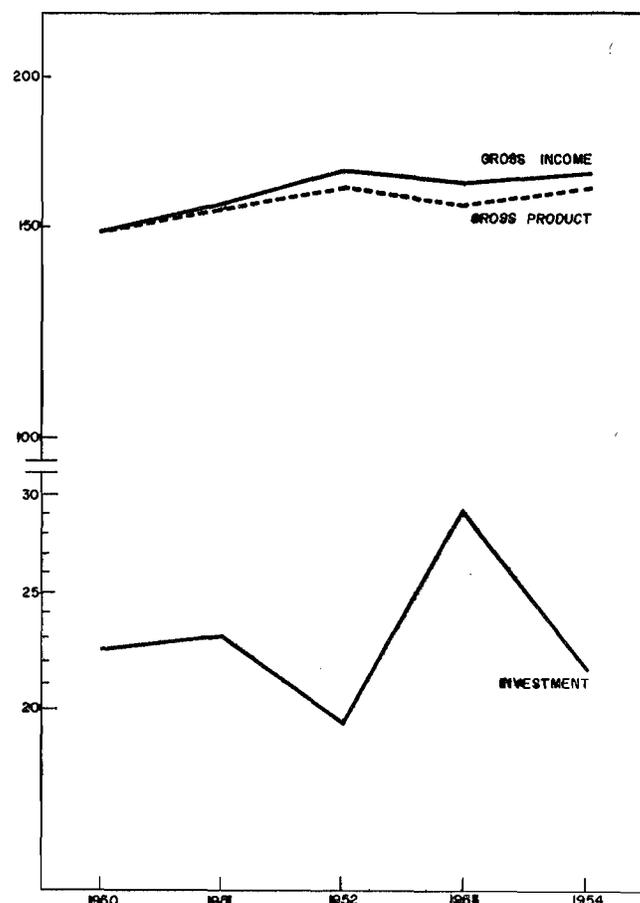
profits, and of a probable net outflow of capital. The deficit was largely financed by credit in compensation accounts and by an increase in trade arrears, while net gold and foreign exchange holdings declined only very slightly. The balance-of-payments situation deteriorated during 1954, as compared with that of 1953, when the deficit had amounted to only 10 million dollars.

After growing rapidly between 1950 and 1952, as a result of higher prices on the world copper market, the capacity to import remained constant during 1953 and 1954 at the 1951 level, which represented the average for the former two-year period. The sharp increase registered during 1951 and 1952 was partly determined by the strong upswing in the proceeds of the large mining companies (increased production costs in Chilean currency, on the

Chart XXVI
CHILE: INCOME AND INVESTMENT

Thousand million pesos at 1950 prices

(Semi-logarithmic scale)



¹ Preliminary estimates, excluding services.

² The investment coefficient in 1953 included carry-over copper stocks which had accumulated by the end of the year and were sold soon afterwards.

one hand, and the greater difference between the sales price established by the central bank and that recognized by the companies, on the other); in part it was brought about by the expansion in other export items. But in 1953-54 some of these factors had a restrictive influence. Copper production declined; the companies were authorized to liquidate at the bank rate (110 pesos per dollar) some of the dollars they had previously sold to the central bank at 19.37 pesos per dollar, thus enabling them to meet higher production costs without a parallel increment in the dollars which remained in the country; thirdly, the price differential in favour of the Government was reduced by about 50 per cent.

It has already been mentioned that financing the balance-of-payments deficit did not involve an appreciable loss of gold and foreign exchange reserves. This was partly because the reduction in dollar holdings was offset by increases in the availability of other currencies (mainly sterling) and partly because payment for some imports—principally petroleum—was deferred.³

The value of exports in the goods and services account during 1954 showed a sizable increase, although it arose only from adjustments in the value of copper exports shipped during the last months of 1953 but sold in March 1954.⁴ In fact, the total value of exports declined slightly in relation to 1953, owing to a decline in their unit value which was not completely counterbalanced by the increase in the export volume. In 1954, the value of imports of goods and services was similar to that of the previous year, although import restrictions had been intensified during the second half of the year.⁵ Despite a pronounced recovery in the trade balance as from the second quarter of the year, reflected by a favourable balance of about 60 million dollars, this sum was insufficient to finance the greater outflow of exchange arising from remittances of profits and the capital outflow.

The capital account (excluding disinvestment caused by the payment of advances made to the Government for unsold copper stocks) showed a net outflow which resulted from adverse trends for all items of the account. In the first place, with the conclusion of the sulphur plant, the copper companies reduced their investment substantially. Secondly, the disbursement of the Export-Import Bank for authorized credits dropped by 50 per cent, while those of the Bank were equivalent to the 1953 figure. Lastly, there

seems to have been a greater outflow of short-term capital due to psychological factors related to the balance of payments.

These adverse trends in the capital account may be reversed in the course of 1955 as a result of the new procedure governing the inflow of foreign capital; when these regulations were approved in February 1954, there was a sharp rise in the number of requests for registering imported capital. A second major influence was the adoption of a law establishing a new fiscal treatment for the large copper companies aimed at encouraging output and expanding new investment.

(b) *Foreign trade*

The quantum of imports and exports in 1954 rose above the 1953 level by about 5.3 per cent for the former and 10.7 per cent for the latter. The increment in the quantum of exports was offset, however, by a price decline of 11.3 per cent, while the prices of imports contracted by only 2.9 per cent. As a result, the terms of trade deteriorated by 9.1 per cent and all the improvement achieved in 1953 was neutralized. Nevertheless, the terms of trade in 1954 stood at a higher level than in either 1950 or 1951.

The increase in the quantum of exports was determined by mining products, except petroleum and iron ore which declined sharply. Mineral exports increased by 18.3 per cent over 1953, while agricultural and industrial exports dropped considerably. The fall in agricultural exports was partly caused by the steady deterioration of Chile's economic situation through an intensification of the inflation during 1954. At the close of the year, measures were adopted to stimulate mineral exports, such as the establishment of an exchange rate of 200 pesos to the dollar (instead of the previous rate of 110) and the authorization to sell some foreign exchange on the free market at a still higher rate. Such measures, however, were not reflected in the statistics for the year.

The increase in the quantum of imports—which rose to its peak level during the last five years—is surprising in view of the difficulties which hindered the export trade during the first half of the year and the relatively large deficit when the foreign exchange budget was initially approved. A major part of the increase was financed by an expansion of Chile's trade arrears. The pressure for a greater volume of imports was assisted by the maintenance of the exchange rate at 110 pesos per dollar for most of the year (while the level of domestic prices rose from 5.6 per cent each month) and by the price decline on the world market.

Far more significant than the rise in the quantum, however, was the change in the composition of imports. There was a strong shift away from purchases of capital goods and towards imports of raw materials and, to a lesser extent, towards fuels. The relative share of consumer goods remained practically constant. Some of the reduction in capital goods undoubtedly arose from a decline in foreign investment but a stronger influence was apparently the urgent requirements of established industries for imported raw materials; many such industries carry low stocks and on occasions they have been obliged to work at reduced capacity because of supply problems. This factor is also linked up with the increase in fuel imports, although domestic output of refined petroleum products rose during 1954, and exports of crude decreased.

³ Trade arrears were estimated at 30-40 million dollars; of these, 15 millions represented petroleum imports, on which the Government reached an agreement with creditors for the repayment of the debt in monthly instalments over a period of three years.

⁴ The copper tonnages shipped but not sold in 1953 were registered as an increase of investment by the producing companies in the country and therefore as disinvestment in 1954.

⁵ It should be noted, however, that import figures, as published by the *Dirección General de Estadística*, sometimes show appreciable differences in comparison with those published by the Central Bank in its balance-of-payments calculations. These differences arise not only from the items not registered by customs (ships, imports of military elements, etc.) but also from administrative procedure which allows certain merchandise to be delivered to importers without complete documents, so that the goods are registered by customs only when the importer delivers the customs documents. For this reason, the imports which in fact entered the country in 1953 are recorded in 1954 and even in 1955. Furthermore, 1954 imports do not appear in the statistics for that year and it is probable that they were more substantial than the previous deliveries which were incorporated in the customs schedule.

There were some important changes in the direction of trade. While commercial activity with the United States declined, a strong expansion of trade with Western Europe and some Latin American countries took place. Thus exports to the United States dropped from 64.0 per cent to 47.4 per cent of the aggregate between 1953 and 1954, while imports from that source fell from 53.4 to 40.5 per cent. There was a sharp increase of exports to Western Europe (from 15.7 to 35.9 per cent) and a smaller increment (from 21.8 to 25.0 per cent) in the case of imports. Chile's exports to the rest of Latin America declined, but there was a strong upswing in imports from that source (19.4 to 30.6 per cent).⁶

The sharp rise in exports to Europe arose mainly from the exchange system in force, which favoured sales in soft currencies and at the same time stimulated purchases in dollars.⁷ As a result of these various trends, Chile's dollar trade balance declined, while a deficit with some European countries, a large sterling surplus, and a debit balance in the payments agreement with Argentina were also recorded.

Trade relations between Argentina and Chile, by virtue of the agreement signed at the beginning of 1954, are particularly important. The purpose of this agreement is to regulate payments, encourage trade and bring about the economic integration of the two countries. At the end of the first year of this agreement, judging by the credit granted to Chilean exporters and importers, an effective expansion of trade appears to have occurred, since imports from Argentina increased by 75 per cent and exports to that country by 20 per cent. As a consequence, Chile had a debit balance of 3 million dollars.

It is interesting to note that the movement of merchandise differed from that established in the lists appended to the agreement. The Chilean demand for wheat, hides, wool and, particularly, for butter substantially exceeded the tonnages foreseen; in the case of fats, imports threatened to create difficulties for domestic production. The free trade system established initially thus had to be modified and it was agreed that either of the two countries could provisionally suspend sales of a specific commodity when the local demand had been satisfied. Nitrate and lumber were among the more important Chilean exports to Argentina. The former represented a value of 1.5 million dollars, in comparison with an estimate of 180 thousand dollars. Lumber sales—with a quota of 8 million dollars—rose to 21 millions and therefore became the main export item from Chile to Argentina.

The agreement provides for trade to a value of 57.2 million dollars for each party.

(c) *The exchange situation*

Following the exceptional inflow of foreign exchange into Chile during 1951 and 1952, the balance-of-payments situation became difficult owing to the constant level of the capacity to import and to the inelasticity of imports. It has already been mentioned that capital goods imports were curtailed in 1954 to maintain the level of consumer goods imports and to increase those of fuels and raw ma-

terials. A high proportion of consumer goods imports may be considered as either impossible or very difficult to replace. For foodstuffs alone the proportion was 51 and 45 per cent in 1953 and 1954, respectively, so that the replacement of the remainder by domestic production depends upon the execution of development plans which will require some time and considerable investment. In relation to income, copper exports were the main cause of the fluctuations in the capacity to import. The 1955 exchange budget estimated ordinary income at 292.3 million dollars, while expenditure was calculated at 425.3 millions. The difference is to be covered by credit and other resources, among which are the postponement of the payment of certain commitments to a value of almost 60 million dollars, loans from the Export-Import Bank and the use of International Monetary Fund resources totalling 55 millions.

This budget is affected by commitments carried over from previous years, amounting to 79.6 million dollars, so that, despite the severe restrictions applied to almost all imports, including both capital and consumer goods, the anticipated deficit is substantial. Prospects for consumption standards and for investment in Chile are thus little short of critical.

The improvement of the world copper market and the higher prices have created tendencies which are more favourable than had been expected. Output, forecast at 321 thousand tons, will perhaps exceed 400 thousand, and income accruing from this sector may rise to 180 million dollars instead of the 121 millions originally calculated.

The new régime adopted for the large mining companies⁸ has two aspects in relation to the influence of copper upon foreign exchange receipts. Firstly, the share of the Government and the inflow of foreign exchange per unit of copper exported will decline. Secondly, the possibility appears of offsetting this reduction by raising output and exports, as well as increasing investment.

3. *The monetary situation*

A rise of more than 60 per cent in wholesale prices and of over 70 per cent in the cost of living reflects the strength of the inflationary process which became the predominant feature of Chile's economic situation in 1954.

The causes of Chile's chronic inflation have already been examined.⁹ The behaviour of the expansive factors and the extent to which they have contributed to the development of the inflationary spiral should be examined in a short-term analysis and are even more important when reviewing events in 1954. Inflation in 1953 had reached a stage at which the money supply, nominal earnings, demand, aggregate expenditure and prices increased at an accelerated rate, following an almost automatic process of interaction; real income and the volume of available goods did not grow, or did so only very slightly because of structural or fortuitous circumstances.

In general, the tendencies observed during 1953 continued to make themselves felt in 1954. Prices and the cost of living rose at a much faster rate than the money supply or the apparent action of the factors which determine real demand. But the traditional inflationary

⁶ These percentages are based on data for eleven months.

⁷ While dollars were quoted at the bank rate of 110 pesos, the quotations for other currencies stood at much higher rates.

⁸ See p. 93.

⁹ See part I, page 56-22.

forces—a fiscal deficit, wage and salary increases and an expansion of credit—although they lost some of their strength, continued to be the basic causes of inflation. They were reinforced by others: balance-of-payments difficulties; monetary devaluation; the deferred effect of the nominal income created in 1953; the inflationary nature of some new taxes; and the predominant fear of the public that prices would continue on their upward course.

The 1954 fiscal budget, established at 62.9 thousand million pesos, in fact exceeded 81 thousand millions for expenditures, while revenue stood at only slightly more than 56 thousand millions. New tax legislation adopted in the course of the year provided an additional 18 thousand million pesos of revenue, but a deficit of 8 thousand millions remained.

Despite the exceptional expansion of nominal public expenditure—about 42 per cent above the 1953 level—its share in income again declined. But a new factor appeared in 1954. Real public expenditure declined by about 10 per cent in absolute terms, but this mainly affected official investment, which dropped to 22.8 per cent of public expenditure and to 4.5 per cent of gross income, figures which are well below the level in any recent year.

The share in income of the wage-earning sector, and also of employees, judging by the partial information available, also decreased. The rise in nominal wages and salaries did not keep pace with the higher cost of living.¹⁰

During the first month of the year bank credit expanded substantially, while loans to the private sector rose at a rate of 6 per cent each month. In November and December there was a still larger increment.

On 16 June, the monetary authorities limited the rate of growth of bank loans and discounts to 1.7 per cent monthly. This anti-inflationary measure apparently had the desired effect and it should be underlined that between the end of June and late November loans increased at a lower rate than the authorized percentage. In actual fact, this restriction coincided with the lack of liquidity in the banking system caused by the Central Bank's suspension of issues for the Government and by the public's heavy withdrawals from banks; a phenomenon which was particularly intense in September and October.

Because of these circumstances and anxiety lest the reduced money supply should hinder industrial activities and the selling of crops, it was decided in November to expand the normal margins for rediscount and to raise bank interest on documents for rediscount from 7 to 9 per cent. This decision and the increase in exchange purchases by the Central Bank produced the exceptional rise in bank credits during December.

In brief, except for the five-month interim period, bank credit to the private sector increased at a very high rate and—together with price increments—enabled enterprises to meet higher wages and other costs without reducing their profits and therefore the demand and expenditure of the entrepreneur.

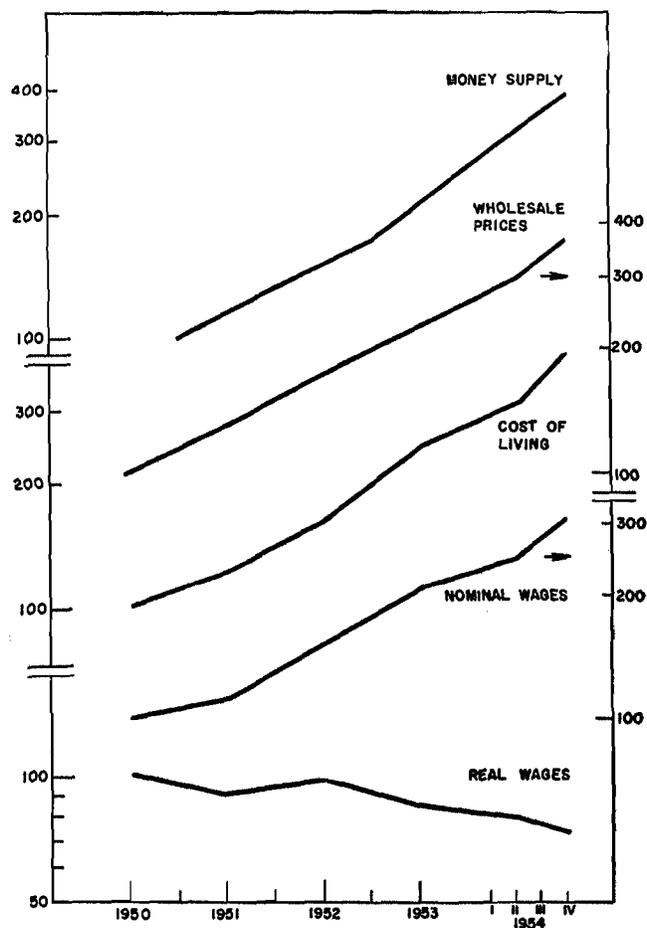
For the whole of the year bank credit to the public sector increased at a slower rate than in 1953. Certain

¹⁰ Statistics for average wage increases are not available. On the basis of the wage levels computed by the *Servicio Nacional de Estadística*, which exclude changes in employment, it is estimated that wages rose by more than 45 per cent during 1954.

Chart XXVII
CHILE: INDICES OF THE MONEY SUPPLY,
WHOLESALE PRICES, COST OF LIVING
AND WAGES

1950=100

(Semi-logarithmic scale)



factors, however, appear to have given the inflationary pressure from this sector greater intensity than had been expected. Firstly, the entire increment in public expenditure arose exclusively from current expenditure, the increase in which, moreover, made it necessary to curtail investment. Secondly, aggregate expenditure substantially exceeded revenue for most of the year. If, at the end of the fiscal year, the budgetary deficit did not reach the exceptional figure which had been forecast, this was the result of revenue from new taxes decreed in August, particularly sales taxes which raised the price of the taxed commodities. The deficit, however, as already noted, amounted to 8 thousand million pesos, while the cumulative deficit is estimated at 30 thousand millions. It should also be emphasized that the liquidity of the banking system which permitted the substantial expansion of credit during the first six months of the year was mainly due to issues of the Central Bank for the Government and official bodies, which totalled almost 6 million pesos from January to April.

The behaviour of these factors indicates that, despite price increases which were proportionally greater than the additional monetary income generated, they played

an active role in developing the inflationary spiral, which was also reinforced by other pressures.

The first of such pressures was constituted by the difficult situation of Chile's balance of payments and the monetary devaluation of 1953 and 1954, particularly the rise in the exchange rate for inconvertible currencies. A growing share of purchases abroad was paid in compensation currencies because dollar income had declined substantially. This exerted a direct expansionist influence upon prices.

The reform of July 1953 unified the selling exchange rates at 110 pesos per dollar and simultaneously suppressed the preferential rates for certain essential imports. Although the new exchange rate remained in force until November 1954, during the course of the year other rates varying between 225 and 235 pesos were established for transactions with non-dollar areas. Trade thus shifted towards these compensation areas, with a consequent rise in the price of imports. In November, the exchange rate was unified at 200 pesos per dollar, the previous rate being maintained only for essential commodities (sugar, wheat, petrol) and for Government transactions.

From another angle it should be recalled that the considerable rise in prices registered in 1954 had already begun in the last months of the preceding year. A disparity may be observed for the whole of 1953 between the growth of monetary income and prices, since the latter rose at a much slower rate than the money supply. In an inflationary process such as that undergone by Chile, despite momentary disparities, there is a tendency towards a fairly close correlation between increases in monetary income—reflected in the expansion of the money supply—and the rise in prices. It is probable that the retarded effect on demand and expenditure of the income generated during the preceding year was felt in 1954. The greater rapidity of the circulation of money was fostered by the inflationary psychology of the public and by the lack of results from the stabilization measures adopted in 1953.

Furthermore, the expectation of steady price increases not only resulted in a more active utilization of monetary income, but also influenced the supply of goods. Purchases made in advance and an accumulation of stocks neutralized the slight increase in available goods.

Further, some of the new taxes established under the fiscal reform measures had a direct inflationary effect. Thus the sales tax—from 3 to 10 per cent—caused an equivalent increase in the price of the commodities so taxed.

The fundamental purposes of the tax reform adopted in August were to raise fiscal revenue, to provide a more equitable basis for the tax system and to promote agricultural output. Furthermore, it sought to adapt taxation to the conditions created by inflation. Apart from the above-mentioned sales tax, the new legislation covered a general revaluation of property, an increase in the stamp and excess profits taxes, taxation of amortizations in excess of the book value of goods, and the annual adjustment of farm valuations based on the over-all profits of farming. The aggregate supplementary tax rate was also raised.

Several of these tax increases came into immediate effect, and, as already mentioned, gave the Treasury an

additional income of 18 thousand million pesos. The budget approved for 1955 stood at 113 thousand millions, while revenue was estimated at 91 thousand millions.

II. BRANCHES OF PRODUCTION

1. Agriculture

After the improvement of the previous year, Chile's farm production in 1953/54 declined by 0.8 per cent in relation to 1952/53. *Per capita* output was 9.5 per cent below the average for the five pre-war years and 1.5 per cent lower than that of the last five years. Bad weather had a decisive influence on these results. Heavy rains in the autumn and winter of 1953 hindered the preparation of the soil and caused delays in and damage to sowing. These events subsequently affected both the area under cultivation and yields.

Increased imports of foodstuffs were required to meet the growing consumption; this resulted in higher prices and difficulties for the balance of payments. Nevertheless, the authorities continued the development policy begun in 1953 and many steps have been taken towards raising the volume of production.

(a) Production

The courses followed by livestock and crop production differed. The former fell by 6.2 per cent, while crops increased by 3.5 per cent. This constituted a change from the previous year, when livestock output had risen by 8 per cent in relation to the preceding period and by 20 per cent in relation to 1950. The difference was caused by fodder shortages in some areas, by competition from certain imported products and by the small incentives offered to other products by the official prices prevailing during most of the year.

As regards crops, the difficulty of expanding the area under cultivation was once more in evidence. The 15 more important annual crops covered only 1,218 thousand hectares, which is the lowest figure during the last five years, and represents 2.9 per cent less than in 1952/53. Apart from the basic obstacles hampering the progress of Chile's agriculture, the reason for this contraction was in fact the bad weather which particularly affected winter crops.

Because of the reduction in sowing and yields, wheat production declined to 955.4 thousand tons, which is 3.4 per cent lower than the previous year and 1.0 per cent below the average for the last five years.

For the same reasons, the barley crop decreased even more in relation to 1952/53 (34 per cent), amounting to only 55.6 thousand tons. The oats harvest of 97 thousand tons registered a 6 per cent increase over the previous year and was the largest crop during the last five years.

Among the spring cereals, the abundant maize harvest merits special mention (97 thousand tons). It was 46.2 per cent higher than the crop in 1952/53 and represents a record for Chile. This exceptional result, obtained with only a slight increase in the area under seed, arose from higher yields, which increased from 1,380 to 1,875 kilogrammes per hectare during the last two years, through larger supplies of hybrid seed produced by the Ministry of Agriculture and the more widespread use of this seed by farmers.

Rice production fell off slightly from the crop levels of the previous season. The rains at the end of winter and

beginning of spring caused reduced sowing and only 80.4 thousand tons were harvested, or 6.7 thousand tons less than in 1952/53.

The improvement in the relative prices of sunflower seed during the previous year revived interest in this crop so that production rose to 75.2 thousand tons, which was 34.8 per cent higher than the 1952/53 harvest and, in fact, constituted a record.¹¹ The potato crop also showed a substantial increase (25.6 per cent); it amounted to a total of 606 thousand tons, a figure which was only slightly exceeded in 1933/34 and 1945/46. High prices during sowing and thereafter encouraged the use of fungicides for pest control and thus contributed to the large yields.

Among the pulses, only beans and lentils improved over the previous year's levels—by 10 and 11 per cent respectively—while the crops of peas and chickpeas were reduced.

Several circumstances contributed to the fall in the production of livestock during 1954. Bad weather in the extreme south resulted in the slaughter of only 1,544 thousand sheep as against 1,770 thousand in 1953, while the wool clip also declined. Moreover, damage to pastures by rabbits is estimated to have caused the loss of 150 thousand sheep. Rabbits were exterminated during the course of the year by infecting them with myxomatosis virus.

Preliminary figures indicate that slaughtering of Chilean-reared cattle decreased from the 1953 figure of 420 thousand head to only 360 thousand in 1954. The increased price of meat after controls had been lifted reduced *per capita* meat consumption during the year. Fish consumption increased, particularly in the provinces of Santiago and Valparaiso. However, the change in price policy and several development measures appear to have provided a new stimulus for livestock production. This assumption is confirmed by such factors as the retention of young bulls by the breeders, in order to improve and increase their herds, the great demand for forage seed, which is only now beginning to be partially met by the Ministry of Agriculture's seed production programmes, and the interest shown in erecting new farm buildings such as silos, barns, etc.

Pig slaughtering fell by 30 thousand head in relation to 1953. The total of only 270 thousand pigs slaughtered was the lowest for the last five years and can be explained by the drop in lard prices. This in its turn was due to heavy imports, which combined with the rise in costs of pig feeding to discourage domestic production.

Milk production, judging from deliveries to the processing dairies, also appears to have declined. Nevertheless, deliveries increased during the last few months of the year, reaching levels higher than those for preceding years. This increase, following the relaxation of price controls, indicated that milk had previously been retained by dairy farmers and processed profitably on the farms themselves.

(b) *Active population and labour productivity*

The evolution followed by the labour force in agriculture and changes in labour productivity may be judged by data from the 1952 population census.

¹¹ According to estimates by the *Servicio Nacional de Estadística* which informed circles consider are rather conservative.

Although the rural population has fallen, there has been a slight increase in the active population in country districts, particularly since 1940. Nevertheless, comparing this increase with that of Chile's total active population, it appears that there has been a relative decrease in the number of persons engaged in agricultural work. Thus, in 1930 the 506 thousand persons employed in farming represented 38 per cent of the active population. By 1940, 620 thousand persons were thus employed, representing only 35 per cent, and by 1953, 632 thousand persons, or only 27 per cent.

Industrialization, which began in the 'forties, not only absorbed the growth of the urban population, but also attracted a large part of the natural growth of the rural population.

On the other hand, there was only a slight improvement in labour productivity. During the period 1950-53, it increased by 2.7 per cent over the previous five years, and by 8.9 per cent in relation to 1935-39.¹²

Such slow progress in productivity is not in accordance with the efforts made to mechanize farm work. Since both the area under cultivation and production have shown a very slight increase, the sole effect of mechanization has been to free labour which could only be absorbed to a very small extent by other sectors of activity. It has not led to a more intensive use of other productive factors by the employment of the labour displaced by machinery.

Changes in productivity have been very different in terms of medium and large holdings, on the one hand, and of small holdings on the other. The former have been able to introduce mechanical equipment and it is in this sector that the reduction in labour has resulted in productivity increases vastly superior to the country-wide average. Conversely, smallholders¹³ have remained outside the scope of these innovations and have, in addition, lost some or all of their chance to work part of the time on larger farms. Productivity in this group has necessarily dropped. Hence it would appear that mechanization has aggravated the chronic under-employment to be observed in the rural areas of Chile.

Progress in productivity has also been retarded by the reduction of the working day in many areas and the fact that greater mechanization has been unaccompanied by other technical improvements. There has, however, been a slight trend in the opposite direction during the last two years.

(c) *Agrarian policy and development measures*

The development policy begun in 1953 continued during 1954. The reorganization of the Ministry of Agriculture was a part of this policy, since it concentrated under a single authority those services which were formerly dispersed, thus enabling organic development plans to be formulated.

(i) *Price policy.* Farming costs have risen sharply as a result of inflation. For instance, among fertilizers sodium

¹² A comparison of five-year periods eliminates the effects of the sometimes violent annual fluctuations arising from weather conditions.

¹³ Farms of less than 20 hectares which, according to the 1936 census amounted to over 124 thousand out of a total of 200 thousand farms, and represented 1.6 per cent of the total farming area.

nitrate prices rose by 207 per cent and those of red guano by 135 per cent. Increases were not so great for working equipment and fuels because of the preferential exchange rates for such imports; even so, the daily cost of operating a tractor rose by 15 per cent, and for a thresher by 118 per cent. There were also heavy increases in draught animal costs and smaller increments in labour costs.

Because of these circumstances the authorities partially modified the policy of maximum prices. Meat and milk, for instance, were excluded from the system, while prices for wheat, rice and sunflower seed were raised in accordance with the wholesale price indices.

(ii) *Taxation reform.* The various changes introduced in agricultural taxation, which will come into effect in 1957, are directed towards more intensive use of the soil and higher productivity. Practically all the improvements required for more rational exploitation are exempt from taxation, together with any increases in land value as a result of irrigation, drainage, clearance and removal of tree stumps, the building of bridges, roads, etc., always providing that these are introduced during the ten years' duration of the effects of the law and that the farm does not change hands. Agrarian taxation will be based on potential productive capacity and 20 categories will be established according to the chemical, physical and agro-economic properties of the soil. Valuations will be automatically adjusted each year in conformity with the increase in the over-all net profit from farming.

(iii) *Agricultural credit.* Farming credit was not greatly affected by the restrictions in force during most of 1954. The Banco del Estado was the main source of credit for farmers, and its Agricultural Department, together with the Mortgage Department, was excluded from the regulations laid down in June. During 1954, this bank granted 56 per cent of all agricultural loans and these in turn accounted for 45 per cent of its entire portfolio. Nevertheless, although the monetary value of production increased—despite the lower quantum—credits granted to farmers by the entire banking system were proportionately lower and did not amount to 30 per cent of that value, as against 34.5 per cent in 1953.

The short-term development loans of the Banco del Estado occupied first place. These were designed to finance costs of sowing, fertilizers and equipment. However, a substantial increase could be noted in loans for stock-breeding, improvements and machinery purchases. In 1954, some 2,500 tractors entered Chile—as against 1,597 during the previous year—and imports of other equipment also rose. Such equipment was available to farmers thanks to the credit facilities granted by the Banco del Estado and the Corporación de Fomento.

(iv) *Plan for developing agriculture and transport.* The Government of Chile, during 1954, completed the establishment of a programme to develop agriculture and transport. In general terms it was based on the recommendations contained in the report issued in 1952 by the International Bank for Reconstruction and Development and the Food and Agriculture Organization.

The programme is to be developed over the next eight years; fundamentally, it proposes a better utilization of the country's natural and financial resources and aims at raising the nutritional standard of the population through greater agricultural output. Its fulfilment would, more-

over, ease the balance-of-payments situation by reducing food imports and by increasing exports of agricultural products.

It also envisages an improvement in the standard of living of the rural population, through the raising of agricultural earnings and labour productivity. This in turn would bring about a greater demand for available goods and services in the non-agricultural sectors.

With these objectives, various production goals are envisaged which would considerably increase supplies of certain basic foodstuffs, such as meat, milk, eggs, fruit, etc.

It is estimated that the completion of the programme would result in a 40 per cent increase in agricultural output through the intensive application of technical skills in rural activities, the full utilization of all resources in land, water, equipment and available manpower and the expansion of the area under cultivation by some 350,000 hectares. This last objective would be accompanied by the irrigation of 200,000 hectares and the reclamation of some 150,000 hectares in the south which at present are either too marshy or covered with forest.

At the end of the period—according to the study—Chile would be able to cover all its requirements of wheat, oils and dairy products, and imports of meat and sugar could be substantially reduced. Moreover, there would be exportable surpluses of fruit, vegetables, pulses, lumber and its by-products, etc. The solution of transport and marketing problems would permit a rationalization of production and a reduction in the pressure exerted by various factors on costs.

The programme's investment cost would amount to a total of 370 million dollars and 109.2 million pesos (at 1953 prices). Transport would account for 43 per cent of the foreign exchange resources, because it would cover not only agriculture but also the general requirements of the country. Particular importance is assigned to highway construction, purchases of railway and road transport equipment, enlargement and improvement of ports, replacement of shipping, and so on.

Direct investment in farms would absorb 30 per cent of the total foreign exchange expenditure envisaged and would mainly represent purchases of agricultural machinery. The remaining capital would be used for establishing a number of industries and plants, such as a pulp mill, sugar-beet mills, saw-mills, slaughter-houses and refrigerating plants, dairy industries, factories for fertilizers and weed-killers, the mechanization of bakeries, a fish freezing plant, etc.

As regards investment in local currency, most of the capital (53 per cent) would be available for the farms, followed by transport (36 per cent).

The study also analyses Chile's future prospects for the period 1954-61, according to whether or not the programme is carried out. If it were put into effect, it would reduce the deficit between agricultural imports and exports, to only 15.5 million dollars for the whole period; if it were not implemented, this deficit would rise to 294 millions. Thus, if the nutritional standard of Chile were maintained, the execution of the programme would involve a considerable reduction in the balance-of-payments deficit.

This whole programme has been forwarded to the International Bank, which is studying the possibility of providing the required financial assistance.

(v) *The Chillán Plan.* This plan is a test at the provincial level of the programme for Chile as a whole and embraces the provinces of Maule, Nuble and Concepción.¹⁴ During its first year of operation it has provided a strong incentive for improving agricultural skills through various agricultural extension programmes, as well as for soil and water conservation, improved stock-breeding, weed control, economic and social research, etc. Two major consequences have emerged from this short-term experiment. The first is the interest shown by farmers in assimilating technical improvements, so that requests for assistance have far exceeded the plan's material and human resources. The second lies in the success achieved in the work undertaken, which provides some indication of the possibilities offered by Chilean agriculture. Small reservoirs have been built cheaply to store water at night and new irrigation methods adopted which have led to an increase in the irrigated area. Erosion has been halted by sowing fodder crops, by terracing and by levelling ditches. Experimental and commercial-scale sowings have been made with selected seed, producing excellent yields. Similar results have been obtained from the use of weed-killers, insecticides and fertilizers; the inoculation of cattle has reduced losses from disease to a minimum, while the programmes for preparing new artificial pastures are already reflected in positive improvements in the general conditions under which stock-breeding develops.

2. Mining

(a) Copper

At the beginning of 1954, prospects for copper mining did not appear favourable. Prices and sales remained at low levels, so that Chile had 100,000 tons of unsold copper. This gave rise to a policy of reducing production, and it was officially estimated that in 1954 the output of the larger mining companies could not exceed 280,000 tons, or 57,000 tons less than in 1953. As the year progressed, a more favourable tendency became apparent. There was an improvement in the London market price and the United States Government bought substantial tonnages of Chile's unsold stocks. This change was confirmed in the third quarter of the year when a copper shortage appeared on the North American and European markets, owing to strikes which caused stoppages in some large copper mines in the United States and in Chile itself. The London price rose to \$U.S. 0.35 per pound and although the United States' price remained at 29.7 cents, it was because exports were restricted and the Office of Defense Mobilization authorized the sale of strategic reserves to industrial consumers. A substantial increase in sales of Chilean copper to Europe, amounting to a total of 185,000 tons during the year, therefore took place.

Other events helped to improve the copper market even further. Some Western European countries lifted the prohibition on sales of manufactured copper, particularly wire, to the USSR and to other East European countries. Demand was also encouraged by industrial recovery in the United States during the last few months of 1954 and the continued industrial progress of Europe. Furthermore,

¹⁴ See the *Economic Survey of Latin America, 1953, op. cit.*, page 158.

many purchasers hastened to replace their stocks. Yet another factor was the coal shortage in the Central Africa Federation, which affected copper mining there.

As the year ended, Chile's output amounted to 361,000 tons, of which 325,000 were produced by the large mining companies. Moreover, it was officially announced that the production for the first half of 1955 had been sold.

During 1954, new prospection and mining studies were undertaken and plans established to enlarge existing mines. High-grade copper deposits were found in the province of Aysén. Expansions are planned at Chuquicamata, including a sulphide plant similar to that in existence, with a capacity for 80,000 tons of copper. It was also announced that the deposits of La Africana, some 20 kilometres from Santiago, would soon be worked. Two million tons of ore have been proven there and the initial investment in the mine stands at 2 million dollars. Output from this mine is expected to reach 12,000 tons annually at first, rising later to 25,000 tons. Another announcement was that 3 million dollars would be invested to establish a mine some 80 kilometres from Iquique; it is said to contain some 10 million tons of ore on the surface and another similar tonnage a few metres underground. The first step is to be the installation of a pilot plant with an annual production capacity ranging from 15 to 18 thousand tons of copper. A similar investment is planned for the El Teniente mine with a view to increasing output of blister and fire-refined copper to 20,000 tons. Finally, the plans of the *Corporación de Fomento* include the establishment of a new smelter in the centre of Chile, with a capacity for treating 30 thousand tons a year.

During 1954, the whole system of the taxation and marketing of copper was overhauled. This gave rise to legislation early in 1955, known as the Reform of the Copper Taxation System.

The object of the new system is to encourage output from the larger mining companies through better taxation and marketing conditions for copper. The sale of copper is once again placed in the hands of the companies, which will now receive the entire sales price. Moreover, the former exchange system has been repealed; under it, a large share of the dollars entering the country to cover local production costs had to be sold by the companies to the State at the rate of 19.37 pesos per dollar. Hereafter the companies will pay a single 75 per cent tax on the profits from individual basic output which will be reduced as production rises; once it has doubled, the tax will be reduced to 50 per cent.

Copper policy remains in the hands of the Copper Department of the Central Bank.

(b) Iron ore

Output of fine iron ore amounted to more than 1,200,000 tons, as against 1,724,000 in 1953. Thus the favourable forecasts at the beginning of the year were not fulfilled. The El Romeral mine did not enter production, while output at El Tofo fell off sharply through working out of the seams. Small mines continued to encounter the difficulties inherent in the deficient and uneconomic transport system between the mines and manufacturing centres. Chile's production is thus in contrast to the iron ore mining position elsewhere in Latin America.

A Canadian company will begin to work the ore at several deposits in the north of the country, particularly

at Chañaral, Taltal, Copiapó and Iquique. Initial output will amount to 625,000 tons of fine iron ore annually.

(c) *Nitrate*

Nitrate production amounted to 1,574 thousand tons as compared with 1,420 thousand for the preceding year. Despite the loss of the important Egyptian market, output was sold in its entirety.

Towards the end of 1954 the Government signed an agreement with the nitrate producers, which, pending ratification by Congress, modifies the terms of the contract-law of 1934. Under the new agreement the Government's share in the profits rises from 25 to 40 per cent, on condition that the industry receives the most favourable export rate of exchange. The companies undertake to place new investments amounting to 36 million dollars over a five-year period, which will be used to enlarge existing plants and to establish new installations, among them a modern loading system at the port of Tocopilla. The Corporación de Ventas de Salitre y Yodo estimates that annual productive capacity can thus be raised from 1,600,000 tons to 2 million tons. A particularly important factor will be the utilization of solar energy through the introduction of modern techniques. Reductions in costs would help to solve the fundamental problem of the nitrate industry, which is not one of markets but one of prices.

(d) *Sulphur*

Sulphur mining is faced with a similar problem. Although recent investments (130 million pesos between 1953 and 1954) have doubled the productive capacity existing in 1952, raising it to a total of 135,000 tons of 99.5 per cent fine sulphur, output in 1954 amounted to only 46,000 tons. Domestic consumption remained at 20,000 tons.

At the beginning of the year it was agreed to export 60,000 tons in equal amounts to France, the United Kingdom and Western Germany, payable on a barter basis with heavy and light transport equipment. The agreement was carried out only with France, which bought 23,000 tons, and partially with the United Kingdom, which purchased 2,000 tons of sulphur.

The final 1954 export price stood at 8,700 pesos per ton, compared with 15,000 pesos per ton in 1952.

(e) *Coal*

Net output in 1954 reached 2,027,000 tons, or slightly less than in 1953 and somewhat below the tonnage forecast. This was due to technical and social difficulties as well as to accidents in some mines. Even so, Chile continued to be the principal coal-producing country in Latin America.

The most important event in 1954 relating to coal output was the success obtained with the "phase separation" washing process, which permits a reduction in the ash content of lignites. A pilot plant is to be built at Valdivia, and, if it should prove successful, the future working of the large coal reserves in Magallanes, estimated at some 3,000 million tons of lignite, can be envisaged.

The collieries plan to increase output by opening up new coal seams or intensifying the work in existing pits. At the beginning of 1955, preliminary operations began on installing the experimental coal-washing plant at Valdivia built by the Corporación de Fomento. Coals simi-

lar to those found in Magallanes will be treated there, so that it may serve as a pilot plant for the future working of the reserves in that area.

(f) *Petroleum*

Output in 1954 stood at 276,000 cubic metres of crude, representing a 38 per cent increase over 1953, when a similar rise over 1952 had been achieved.

At the end of the year the Concón refinery began operations. It has a daily capacity for handling up to 3,200 cubic metres of crude, whether from the Magallanes wells or from other producing countries. According to studies carried out by the Empresa Nacional de Petróleo, this refinery, which will use domestic and imported crude, should be able to meet domestic requirements of petrol and kerosene for several years and will produce diesel oil and fuel sufficient to cover the needs of the central and southern zones. The daily output will be: 1,500 cubic metres of petrol, 350 of diesel oil and 300 of petroleum fuel.

(g) *Radioactive ores*

New deposits of radioactive ores have been found in Chile and a project is being studied to declare them subject to expropriation. A State-owned enterprise would manage all operations relating to these minerals and to their marketing and export. The project allows that in some cases and under certain conditions, private enterprise will be permitted to exploit those deposits which are not worked by the State.

3. *Industry and energy*

Industrial activity remained practically stationary during 1954, after the considerable increase during 1953, when a 10 per cent rise over the previous year had been recorded. The problems of Chile's economy—principally resulting from foreign exchange shortages, credit restrictions and labour troubles—had repercussions upon manufacturing output. Although some sectors raised production, others remained stationary or even decreased.

Steel production remained at practically the same level as during the previous year: 320,000 tons in 1954 and 313,000 in 1953. This represents the maximum capacity at the Huachipato and Corral mills. Greater activity in the iron and steel transforming industries led to a substantial increase in domestic demand, particularly for round bar and tinplate. This explains the drop during 1954 in exports, which, including sheet, bar and tinplate, amounted only to 58,700 tons, or 37 per cent lower than in 1953. It is expected that the increase in domestic consumption will continue once the mass production of tools begins; three of the more important companies in Chile have formed an association for this purpose. A further contributory factor will be an expansion in the manufacture of metallic structures and steel tubing. An indication of the growth of metallic transforming industries may be found in the fact that the labour employed therein had risen from 19,000 in 1946 to 32,000 in 1954.

Cement production stood at 775,000 tons, thus exceeding the 1953 figure by 12,000 tons; no change was evident in the building industry, although there was a decline in the number of permits requested.

Among the food industries, sugar was the most active.

The Los Angeles sugar-beet factory entered operations with an annual capacity of 10,000 tons and produced some 4,500 tons during its first year. The success achieved in growing beet and in processing them has provided an incentive to enlarge the Los Angeles factory to an annual capacity of 20,000 tons and to install three more such plants at Llanquihue (20,000 tons), Cautín (10,000 tons) and Linares (10,000 tons). Over the next few years sugar output should thus rise to 60,000 tons, which would cover 25 per cent of the demand.

The cotton textile industry, with 16,000 workers in 22 mills, and the woollen industry, with 10,000 workers in 10 large mills, showed a higher output than in 1953. But, towards the end of the year, there was some anxiety regarding cotton supplies. This raw material is entirely imported and requires an annual expenditure of some 30 million dollars, if the normal rate of activity in the industry is to be maintained. In the output of the 140 rayon mills, in which 12,000 workers are employed, there was some contraction. But as a whole, the textile industry showed a 5 per cent increase in relation to 1953 production levels.

Paper mills, which had produced 49,500 tons in 1953, also increased their output—by 4 per cent for writing paper and 15 per cent for wrapping papers. Chile, in 1954, pro-

duced 50 per cent of the newsprint it consumed, estimated at 24,000 tons, and 15 per cent, or some 5,000 tons, of its pulp requirements.

The tyre factory produced 192,000 units in 1954, exceeding the 1953 figure by 34 per cent and that of 1952 by 15 per cent.

During 1954, the hydro-electric power station at Los Cipreses was almost completed. It has a capacity of 92,000 kW and has been built by the Empresa Nacional de Electricidad (ENDESA). When this plant enters production during the second quarter of 1955 it is expected to put an end to electric energy rationing, introduced in the central area of the country—particularly in Santiago—during recent winters. Other plants are under consideration, such as that of Sauzalito for 8 thousand kW in the province of O'Higgins; "Isla A", (30 thousand kW) at Talca; the 45,000-kW plant at Pullingue in Cautín and the Lago Laja power station of 130 thousand kW in Nuble Province. Chile's installed capacity in 1954 amounted to 827,500 kW, distributed among public utilities (462,000 kW), large mining companies for copper, nitrate and iron ore (262 thousand kW), and light industry and medium mining (105,000 kW). Aggregate energy generated during the year stood at 3,456 million kWh, of which 2,265 millions were supplied by public utility companies.

Chapter VI

COLOMBIA

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. Gross income and investment

An unusually favourable external circumstance, the high price of coffee, ensured a 13 per cent increase in Colombia's gross income for 1954—the highest in the last five years—despite the altered situation during the second half of the year. A compensatory policy prevented this expansion from assuming an inflationary character during the first six months and from relapsing into a depression later in the year, when lower coffee prices modified the anticipated results. The high investment coefficient (17.9 per cent) was exceeded during the last five years only by that of 1953 (20 per cent).

The terms of trade, which had remained virtually stationary since their sharp upswing in 1950, improved substantially and for the first time exceeded that year's levels, the index reaching 115.2 (1950=100).

There was also a steady and persistent upward movement in both the product-capital ratio and the productivity per actively employed person. The gross product showed a similar development, the increment registered in 1954 being 9 per cent.

While the annual results were naturally influenced by the sharp rise in coffee prices, they largely reflected a continuous process of growth which quickened its pace in 1954. In previous years economic development had also been encouraged by other favourable factors, including a comparatively abundant inflow of foreign capital, which, after a drop in 1953, again reached fairly substantial proportions in 1954.

An outstanding feature of Colombia's economy is the progress of industrialization. Besides enjoying legislation for tariff protection and general encouragement, industry scarcely felt the impact of the social and political unrest that adversely affected agriculture. On the contrary, migration from rural areas to the towns gave industry the two-fold impetus of a larger available labour force and a higher demand for manufactured goods. Over the period 1950-54, the annual average growth rate of industry's gross product (excluding building) stood at 8.8 per cent, while that of agriculture was only 4.4 per cent. Manufacturing could rely upon a steadily increasing supply of capital goods, raw materials and fuels, imports of which were not as a whole affected by the over-all import decline during 1951-52. In 1953, purchases of capital goods amounted to almost 50 per cent of all imports, but in 1954 this coefficient declined, owing to heavier imports of consumer goods which were required to bridge certain gaps in domestic foodstuff production.

Changes in the distribution of income also benefited industrial expansion. Until 1950, there was a pronounced rise in real wages and, if much of the ground gained was lost during the two subsequent years as a result of migra-

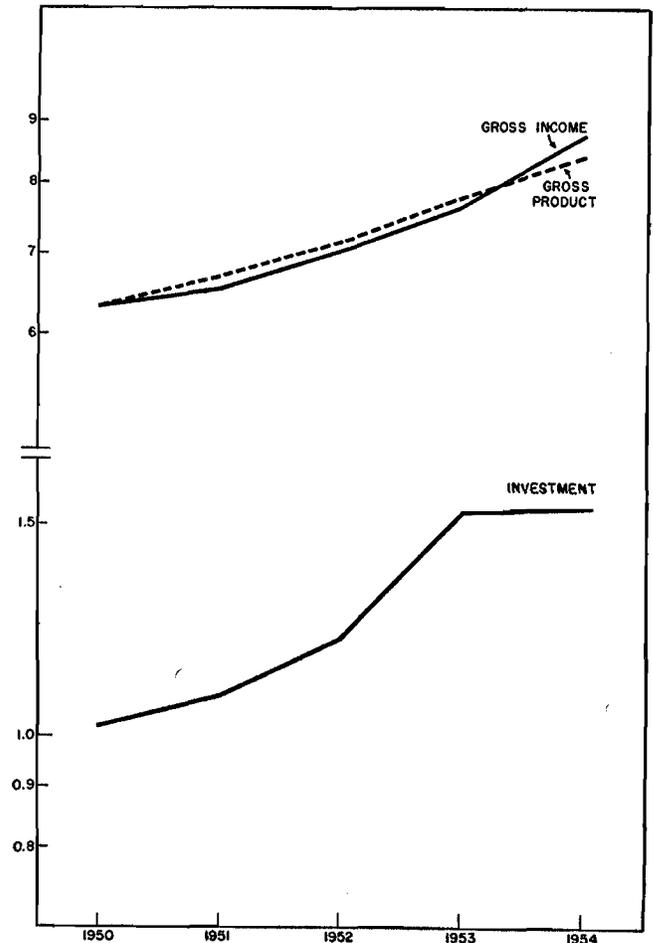
tion to urban areas, the wage-earning sector's share in gross income must have been maintained through the higher level of employment. No information on the recent evolution of wages is available, but it is believed that they were periodically adjusted to variations in the cost of living. Broadly speaking, therefore, demand did not suffer from the changing circumstances.

The greater revenue accruing to other factors resulted in an expansion of the demand for capital goods; while the *per capita* availability of capital goods rose by an annual average of 15.1 per cent between 1950 and 1954, consumer goods increased by only 7.9 per cent. In other words, the growth of income favoured investment more than consumption.

Chart XXVIII

COLOMBIA: INCOME AND INVESTMENT

Thousand million pesos at 1950 prices
(Semi-logarithmic scale)



These facts help to explain why the abrupt changes in coffee prices and their impact on the value of exports in 1954 led to no serious upheaval in Colombia's economy. Moreover, the policy adopted during the year under review exerted a compensatory influence and curbed the fluctuations which such changes would otherwise have caused. The fall in coffee prices took place when almost the entire crop had already been sold, and could not therefore substantially influence the results for the period or produce very marked depressive effects over the short term.

Available goods increased by 14 per cent in 1954. The major contribution came from internal factors, because, while imports rose in absolute terms, a still greater expansion of domestic production enlarged the latter's share in aggregate available goods. It was industry that was largely responsible for the rise in the gross product.

An uninterrupted expansion had been taking place in both public expenditure and its ratio to income, but in 1954, despite an absolute increase of 10 per cent, the ratio was slightly lower. Public investment had reached 35.3 per cent of all investment in 1952; the percentage fell in the two subsequent years, but in 1954 it returned to about 30 per cent. The distribution of public expenditure between consumption and investment has remained almost constant over the last four years (approximately 70 and 30 per cent respectively). These figures underline the dynamic role played by the public sector in Colombia's economy, although there has been no budget deficit since 1950.

2. *The balance of payments and foreign trade*

(a) *The balance of payments*

The deficit of 25 million dollars does not preclude 1954 from being considered as a generally favourable year for the balance of payments. This deficit largely arose from the evolution of foreign trade, which, after eight highly satisfactory months, suffered an abrupt reversal. Exports, after dropping sharply for two months, were able to regain their normal levels and were therefore less responsible than the heavy imports, which were clearly not restricted in proportion to the altered circumstances.

The current value of exports constituted a record, while the capacity to import also reached a peak level. Yet imports in fact exceeded this capacity, increasing to 100 million dollars more than in the previous year. The measures adopted by the Government in the latter part of 1954 on account of the decrease in foreign exchange income were too late to curtail imports.

The surplus in the trade balance was far below the sum required to cover net payments for services and, despite assets in the capital account, the year closed with a deficit in the balance of payments, which corresponded exactly to the 25 million dollars which Colombia had requested as a loan from the International Monetary Fund.

The movement of the gold and foreign exchange reserves held by the Banco de la República did not precisely follow that of the balance accounts. This was because the trade arrears that began to accumulate in October were liquidated by importers only from January 1955 onward. Hence, at the end of December, reserves still registered a substantial increment, which was largely exhausted in the early months of 1955 when there were still many trade debts outstanding.

It was estimated that the capital account showed a net income of 20 million dollars, against a net outflow of 11 millions in 1953. This assessment was based on the larger investments made by foreign petroleum companies.

During the last few years, Colombia had received capital from other sources, and in 1954 an increase probably succeeded the decline in 1953. It is known that several further credits, amounting to 7.2 million dollars, were granted by the Export-Import Bank and the International Bank for Reconstruction and Development, for the purchase of agricultural, textile, telephonic and road-building equipment. Two private banks in the United States are to contribute part of the Bank's loan for agricultural activities.

The most encouraging event was the agreement with a French bank for a further loan of 50 million dollars to enlarge the Paz de Río steel plant. Another credit of 40 million dollars for public works at Bogota is being negotiated with English bankers.

(b) *Foreign trade*

Although the current value of exports reached a record figure, their quantum was 15 per cent less than in 1953, a situation which underlines the heavy influence of coffee prices. Coffee caused most of the decline (13 per cent), although the quantum exported was higher than any former year except 1953, when stocks accumulated from several previous crops were sold. The first eight months represented a period of expansion; the remainder of the year was characterized by a progressive deterioration in prices which affected the volume of sales, but insufficiently to cause any serious reduction in the large annual volume of exports.

A fall of 5 per cent in petroleum exports did not arise from a decline in production, but from an increase in domestic consumption, in close relation to Colombia's augmented refining capacity.

No notable changes took place in other exports; moreover, coffee and petroleum represented 98 per cent of the total export trade in 1954.

The high income accruing from exports during the first eight months of the year led to a more liberal import policy. The list of prohibited imports was abolished and purchases of certain foodstuffs in short domestic supply were authorized. The consequences were a 15 per cent expansion in the quantum of imports, which attained a record level, and some minor changes in their composition. The share of consumer goods in all imports increased from 21.7 to 24.7 per cent, while that of capital goods fell from 49.8 to 46.2 per cent.

The export price level rose by 26.7 per cent in relation to 1953, because of the substantial coffee tonnages sold during the months when prices were at a peak. Since import prices also increased by 4.3 per cent, the improvement in the terms of trade was reduced to 21.4 per cent.

The Government's endeavor to widen the range of Colombia's export markets has to date met little success. Available information on the first nine months of 1954 reveals no changes which may be regarded as symptomatic of new trends. Sales to the United States and Canada, although slightly lower, still represented 80 per cent of all exports. Exports to Europe fell short of 12 per cent, despite an increment of 20 million dollars distributed solely be-

tween the Netherlands and Western Germany. Nor were there any changes worthy of note in the source of imports.

Commerce with other countries of the region did not represent more than the approximate figure of 1 per cent of all Colombia's foreign trade.

3. *The monetary situation*

The rise of 6 per cent in wholesale prices (based on foodstuffs in the city of Bogota) and 1 per cent in the cost of living fails to give an accurate impression of the inflationary forces besetting Colombia's economy in 1954. Not until the second quarter did the cost of living increase somewhat more sharply, only to fall again later.¹ The contrast between the evolution of these indices and that of the money supply is largely explained in the first place by the process of redistribution which accompanied the growth of income and channelled demand towards capital and durable consumer goods or luxury articles, and secondly by Government policy.

Monetary expansion was influenced by various factors during the course of the year. In the first quarter it arose from an earlier increase in 1953 and was caused by external factors and by the public sector, which financed some of its heaviest expenditure and investment with national debt bonds held by the banking system. The private banks, with the support of the Banco de la República, were thus in a position to raise credit to the private sector. This process, intensified from April onward as a result of the unprecedented rise in monetary reserves, continued until August, when the decline in reserves began and the expansion of the money supply slackened.

The impact of monetary policy on internal factors reduced the fluctuations which the action of external forces would otherwise have provoked. During the earlier period, credit restrictions were in force and the Central Bank resorted to its normal practice of raising the minimum cash reserves compulsory for banks and shortening the term for rediscounts. In addition, the Government imposed a tax on coffee exports, perhaps the most important of the measures adopted to mitigate the expansionist effects of high coffee prices. The new tax is applied as follows: when the registered price² per sack of coffee is higher than 115 dollars, half of the surplus must be contributed to the Fondo Nacional del Café (National Coffee Fund), which transfers 85 per cent of its receipts to the Banco Cafetero; this bank, in turn, must devote such funds to import credits exclusively. It was decided in January 1954 to peg the dollar quotation for coffee exports at 2.38 pesos. The gradual devaluation envisaged in the reform measures of March 1951, which aimed at establishing this dollar quotation at the rate for other exports (2.50 pesos), was thus suspended.

In August, the new situation, which involved a fall in export values and a downturn of international reserves, also caused changes in banking and monetary policy. Credit restrictions were relaxed, and greater loans curbed

the deflationary influence of external factors. As the price of coffee decreased, the tax on exports was abolished and the registered price lowered.

The money supply continued to grow, although at a pace which slackened considerably in the third quarter. Expansion was faster in the closing months of the year, and by December the increment in the money supply stood 20 per cent higher than in the same month of 1953.

The fact that this rise in the money supply did not apparently find expression in a parallel growth of real demand, with its corresponding effect on prices and the cost of living, may be attributed to a number of causes. In the first place, the higher income was unequally distributed, to judge by the stability of real wages,³ and benefited sectors with a lower income-elasticity in relation to the demand for consumer goods. At all events, as a result of the redistribution, the demand was highest for capital goods and non-essential commodities.

A larger increase was registered in available goods than in income, not only because the gross national product expanded but also on account of the high import level maintained throughout the year, despite the negative changes in foreign accounts which took place in the closing months of 1954. Government policy made a major contribution to this result. Early in 1954 the schedule of prohibited imports was abolished and was replaced by a list subject to a 40 per cent *ad valorem* exchange surcharge; the free importation of foodstuffs was authorized shortly afterwards. Later in the year, when export values declined, the exchange surcharge was raised to 80 per cent on a larger variety of luxury goods.⁴ But no pronounced reduction of imports took place.

Although there was a slight relative decline in public expenditure, which represented 17.1 per cent of gross income as against 17.6 per cent in 1953, in absolute terms it increased by more than 10 per cent at constant values (1950 pesos). The influence of the public sector was compensatory and, up to a point, neutral. Public investment remained at high absolute levels, but was financed from the increased income accruing from the tax reform of 1953 and from heavier customs duties. The revenue from the coffee tax was employed to import capital goods and, on a smaller scale, to expand development loans to industry and agriculture. The fact that State income is so largely derived from direct taxation mitigated the expansionist effects of higher expenditure, while the budget surplus had a similar effect because it exceeded the rise in bank loans to the public sector.

During the last two months of the year, a stronger pressure towards higher prices was exerted by the exchange surcharges on imports. Furthermore, quantitative restrictions were more severe; the lower coffee earnings will necessarily affect treasury revenues; and both demand and investment have continued to receive the powerful impetus of the exceptionally favourable circumstances prevailing in the early months of 1954. These factors may strengthen

¹ The level and evolution of the indices differ appreciably from one part of the country to another, because the poor communications system more or less isolates one district from another.

² The registered price is the dollar value which must return to the Central Bank for each sack of coffee exported. It is fixed periodically by a Board of which the General Manager of the Central Bank is a member.

³ Only incomplete data are available on wages in 1954, but estimates suggest that they kept pace with the cost of living.

⁴ Early in 1955, certain prohibitions were re-enforced, and exchange surcharges, determined by the essential nature of the imports, were more widely imposed. This implies the establishment of a multiple exchange system and a depreciation of the peso rate of exchange.

the upward trend in prices, hitherto limited by monetary and fiscal policy.

II. BRANCHES OF PRODUCTION

1. Agriculture

Government efforts to expand agricultural production were inspired by the necessity for greater domestic availabilities of foodstuffs and vegetable raw materials and the need for diversifying exports, which are at present almost restricted to coffee. Satisfactory results were recorded in some branches of agricultural production, but to date there has been no substantial change in its composition, nor has its development during the last few years been far ahead of demographic growth. Agriculture more than any other activity was affected by the social and political unrest of the period 1950-52; and the recovery that has been taking place during the last two years cannot yet be considered as complete. Moreover, the upward movement in coffee prices, which was accelerated during the first half of 1954, encouraged greater cultivation of this crop and so conspired against the plans to diversify exports.

The increase in agricultural production stood at 4.1 per cent in 1954, thus exceeding both the growth of the population and the expansion achieved in 1953. The improvement arose entirely from crops, in which the increase amounted to 53 per cent, as contrasted with a decline of 1 per cent livestock activities.

(a) Crops

Although all crops but rice shared in the expansion, the rise was very unevenly distributed.

The stimulus provided by higher prices led to more careful cultivation of coffee plantations; production reached 403,000 tons, which represented an increase of 5 per cent in relation to the previous year and constituted Colombia's record harvest. Recent research carried out by the Federación Nacional de Cafeteros (National Federation of Coffee Planters) showed that the area under cultivation has been extended by over 100,000 hectares during the last few years. It now covers more than 850,000 hectares, whereas in 1948 it was estimated at only 590,000.

Cereals increased by 2.3 per cent in the aggregate. A record wheat crop yielded 175,000 tons, 2.9 per cent more than in 1953. Wheat is the object of the most energetic official endeavours, the target being satisfaction of the entire domestic demand. Imports were severely controlled and the minimum prices guaranteed to farmers were far higher than those quoted on the world market.

The production of maize (800,000 tons) and barley (68,000 tons) exceeded the preceding year by 3.9 and 4.6 per cent respectively; barley, as well as wheat, yielded a record harvest. On the other hand, the rice crop was 2.9 per cent smaller.

The increase in the production of sugar, which maintained the rate of expansion begun in 1948, was also considerable. The installation of new refineries, which entered production in 1953, the renovation of equipment for the largest sugar-mill in the Cauca Valley, and technical improvements in cane cultivation, all combined to encourage the higher production of 210,000 tons, which was 12 per cent above the 1953 level. Although the production

of *panela* (unrefined brown sugar) also increased by 5 per cent, it was far below output in former years; its production was no obstacle to the process of substitution which is taking place as the refined sugar industry continues to develop.

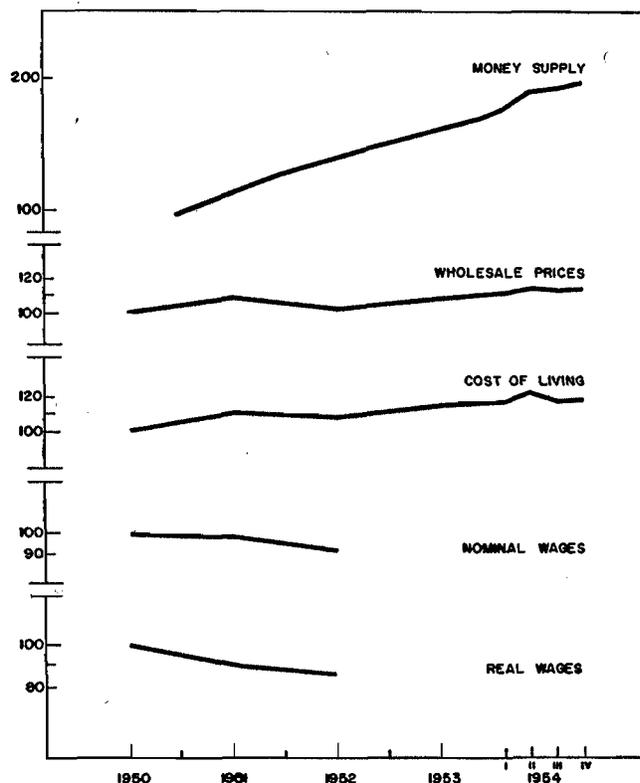
Cotton was another crop where good progress was made, and production rose to 27,900 tons, or 64 per cent higher than the previous year. In 1953, in fact, a marked increase over 1952 had already taken place, because of the ever-larger area sown and the more widespread use of better techniques, which together raised the yields per hectare from 254 kilogrammes in 1952/53 to 358 in 1953/54. Cotton also enjoyed the stimulus of official guarantee prices, while imports were limited to covering shortages, which were restricted to the long fibre cotton that Colombia does not produce.

Chart XXIX

COLOMBIA: INDICES OF THE MONEY SUPPLY, WHOLESALE PRICES OF FOODSTUFFS, COST OF LIVING AND WAGES

1950=100

(Semi-logarithmic scale)



(b) Livestock

The slight upward movement in livestock production registered until 1951 was succeeded by a decline, which continued in 1954. Apart from technical, transport and marketing problems which affect stock-breeding in Colombia,⁵ the current situation appears to reflect the consequences of the disorganization of cattle-breeding during the period of political unrest.

The number of pigs was somewhat larger, while that of sheep and cattle declined. Only 1.32 million head of cattle

⁵ See *Economic Survey of Latin America, 1953*, pp. 165-166.

were slaughtered during 1954 as against 1.35 millions in 1953. This reduction was also influenced by legislation adopted in 1954 prohibiting the slaughter of cattle less than eight years old and fit for breeding purposes.

(c) *Production and imports of foodstuffs*

Despite the expansion of agricultural production, difficulties in the supply of foodstuffs again arose in 1954. There were a number of reasons for this situation. Firstly, the increase in production of foodstuffs amounted to only 2.5 per cent, while all other agricultural products, including those for export, rose by 9.1 per cent. Secondly, there was an over-all rise in the demand, a characteristic feature of economic expansion that did not fail to affect the consumption of foodstuffs, although on a smaller scale than other sectors; simultaneously livestock activities were on the decline, so that meat and dairy products had to be replaced by those of vegetable origin, for which an additional demand was therefore created. Finally, delays took place in harvesting some crops, while marketing, transport and storage difficulties still exist and provide an explanation of price and supply disparities from one district to another.

During the early months of 1954, substantial imports of foodstuffs were authorized, although advance permits from the Ministry of Agriculture were stipulated as a safeguard against competition which might prove detrimental to domestic produce. On these terms, rice, wheat, packed meats, fruit, eggs, lard, oils and fats, cacao, etc. were all imported.

(d) *Development policy*

Conditions prevailing in Colombia today are favourable to the recovery and development of agriculture by means of an organic and integrated programme designed to centralize and co-ordinate the activities of the various organizations hitherto responsible for this task. Many of the measures adopted have yielded good results, but the incentives have not contributed to a decline in monoculture or to an adequate use of crop rotation. Moreover, it is clearly essential to develop crop cultivation on a basis compatible with stock-breeding.

The over-all measures include guaranteed minimum prices for six basic products, credit facilities, tariff protection and the control of imports.

Some progress was made in agricultural research. For instance, a new strain of wheat was obtained, entitled *Bonza*, which ripens earlier and is more resistant to new kinds of rust which seem to have been attacking *Menkemen*, a hybrid that during the last few years had been successfully cultivated. The propagation and multiplication of hybrids and improved varieties of maize and beans continued, while a project was drawn up for research into better cultivation conditions on cacao and tobacco plantations.

Under the Point IV programme of co-operation, the United States Government and the Rockefeller Foundation pursued their work of research and of spreading technical knowledge. The Foundation, which has been active in Colombia since 1950, helps to provide qualified technicians by defraying the cost of their training in universities abroad. In collaboration with Colombian experts, genetic and technological research was carried out in connexion with wheat, barley, maize, beans, peas and potatoes, as

well as livestock production, where endeavours are being made to improve native cattle breeds and to extend fodder resources. The joint programmes of the Ministry of Agriculture and the Point IV Co-operative Institute are concerned with raising the general standard of technical efficiency in the spheres of management, sanitary conditions, domestic economy and social services, the work having begun in the Department of Boyacá.

An increase in the capital of the Caja de Crédito Agrícola, Industrial y Minero enlarged the resources available for agricultural credit. This institution also simplified procedure, granted longer terms and higher ceilings, and accepted a wider range of guarantees. The maximum for short-term loans was raised to 25,000 pesos, while medium-term credits up to 50,000 were given for imports of cattle and farm machinery. Moreover, medium-term credit facilities were made available to large-scale farmers (with a capital of more than 500,000 pesos) who could not previously benefit from them. Many loans were also granted to farmers who had suffered from the recent civil war.

The main purpose of the Banco Cafetero, which was opened in March 1954, is to finance the production, harvesting, transport and export of coffee and other crops. Its funds were constituted by revenues from the tax on coffee exports.

As regards storage, the building of eight silos was completed. They are situated in different parts of the country, and add a total of 31,340 tons to the capacity of 4,000 tons which existed previously. The cost—11 million pesos—was partly defrayed by a loan of 2.2 million dollars granted by the Export-Import Bank.

Cattle rearing was encouraged mainly by credit aid for breeding and importing stock. Progress was made in various branches of research into the selection of native breeds, the results of cross-breeding with foreign cattle and the adaptation of the latter to Colombia's environment, as well as in laboratory and field studies on the prevention and treatment of disease and the production, preservation and utilization of various kinds of fodder.

2. *Mining*

Colombia's potential industrial development is bound up with the efficient exploitation of the country's mineral wealth. The need for a policy to encourage prospection and to promote technical and geological surveys of the different areas led, in 1954, to the creation of the División Nacional de Minas (National Department of Mines) and the ratification of the new mining code. The former will be responsible for the administrative, juridical and technical aspects of the mining industry. In addition, it is charged with supervising and promoting mining, as well as organizing economic and technical assistance to producers. The new mining code unifies all the existing regulations connected with exploitation and concessions.

Colombia's traditional branch of mining consisted of precious metals—gold, silver and platinum—which are today less important than other minerals more directly connected with industrial development. The national census of the mining industry carried out in 1953 recorded 2,812 privately-owned mines, comprising 2,043 for gold, 416 for coal, 83 for copper and 21 for emeralds. But, of the 20,487 actively employed persons, petroleum extraction accounted for 7,847, coal mining for 4,930 and precious metals for 4,351.

In mid-August 1954, it was announced that a rich iron ore deposit, almost as pure as that of the Paz de Río mines, had been discovered in the neighbourhood of Belencito, only 45 kilometres from the iron and steel works. Its exploitation in the near future therefore seems feasible.

According to estimates for the first two-and-a-half months after it entered production, the iron and steel plant at Belencito consumed 45,000 tons of iron ore from Paz de Río, while iron output was 1,600 tons in 1954.

Coal production, as estimated by the Ministry of Mines, amounted to 1.5 million tons in 1954, as against 1.2 millions in 1953. The Paz de Río mines, which will supply coking coal for the blast furnace at the iron and steel plant, will enter production in June 1955.

An official contribution of 3 million pesos enabled geological and mining prospection to be completed for the El Cerrejón deposits, where proven reserves exceed 35 million tons of coal, while drillings indicate another 200 million tons.

An agreement was signed between the Government and a United States firm to build a coal transporter system between Cali and Buenaventura.

The output of crude petroleum amounted to 6,356,000 cubic metres, thus exceeding production in 1953 by 1.4 per cent.

At the end of 1954, the extensions to the State refinery at Barrancabermeja were inaugurated. This plant now has a daily capacity of 5,804 cubic metres and will be able to satisfy the following proportion of the domestic consumption: 100 per cent of aviation petrol and fuel oil, of which there will also be an exportable surplus; 78 per cent of petrol for motors, and kerosene; and 68 per cent of the diesel oil and 22 per cent of the tractor fuel required. The aggregate cost of the installations stood at 96.5 million pesos, and was partly covered by loans to the amount of 18 million dollars from private United States institutions.⁶

A private company decided to build a new petroleum refinery at Barranquilla, which will have a capacity of 3,975 cubic metres, will cost 30 million dollars, and should be completed in 1958. A project is also being planned to construct a pipeline system for transport from the refineries to the different provinces.

Gold-mining is once again facing a critical situation. In 1954 production fell to 377,000 troy weight ounces, as compared with the 437,000 in the preceding year. This reduction was due to the rise in the value of the Colombian peso, which halted the impetus given by the free sale of foreign exchange accruing from gold exports, a system which had been established in 1952. The output of silver also declined from 117,400 troy weight ounces to 112,500.

Near the city of Bucaramanga, 250 miles north of Bogotá, a large radio-active mineral deposit has been discovered.

3. Industry and energy

Although no final index for industrial production in 1954 is as yet available, it is clear that expansion continued as rapidly as in the recent past and that the high rate re-

⁶ The Central Bank contributed 3 million dollars and the remainder represents the value of the installations which existed previously.

corded in 1953 was actually exceeded. The data available show a rise of nearly 17 per cent above production during the same period in the preceding year. Greater manufacturing activity was also reflected in the progressively larger share of industry in the gross product. Other indications of the same trend were provided by the rise of 50 per cent in industrial employment over the last two years and by the fact that capital goods imports account for almost half of all imports, which reveals the high rate of investment attained.

Among the general reasons for these results, first place must be accorded to the growth of the capacity to import, which doubled during the period 1948-53 and, mainly as a consequence of the improvement in the terms of trade, in 1954 exceeded all former levels. The influence of the same factor was apparent in public investment and official current expenditure, in private investment, in increased credit facilities (notwithstanding anti-inflationary precautions), and, finally, in the creation of a favourable climate for the acceleration of industrial development.

More specific causes included the opening of the Paz de Río iron and steel mill in October. This enterprise — Colombia's most important achievement for a basic capital goods industry — brought in its train new incentives for developing other activities. Its inauguration attracted the attention of foreign, and especially United States, capital, interested in establishing various mechanical industries, including some as important as the assembly of passenger cars. But such developments must await the establishment of a rolling-mill at the steel plant. It will constitute the second stage, now about to be undertaken by the Acererías de Paz de Río S.A. To avoid marketing problems, the Government prohibited imports of bars, sections, wire and rails.

The rate of growth of Colombia's industry can be accelerated. It is generally recognized that the principal previous obstacles have probably been the following: (1) the scale of tariffs, which imposes heavier duties on raw materials than on processed products; (2) the considerable extent to which many activities, especially the textile industry, depend upon imported raw materials; for example, if certain foodstuffs industries with very rudimentary transforming processes are excluded, the remainder together obtain more than 50 per cent of their raw materials from abroad; (3) the lack of an organized medium- and long-term credit system, although private banks have been authorized to grant medium-term credits to industry and the latter are already being issued to encourage small-scale enterprises; (4) the problems of transport to consumption centres and the high cost of maintaining large stocks; (5) the heavy initial investment required, mainly because of the need for additional electric energy. Difficulties in this last sphere appear to have lessened with the entry into production of new hydro-electric power stations, which enabled energy for industrial purposes to be increased by 12 per cent in relation to 1953.

A further limiting factor of recent origin lies in the fiscal reform of 1953, which created taxation conditions that were less favourable to limited liability companies than to companies having a different legal form. During the first four months of 1954, 120 limited liability companies were changed to another status.

No serious problems affected the marketing of Colombia's industrial output. Apart from the greater demand

that arose from prevailing economic conditions, imports of manufactured goods received an additional 40 per cent surcharge over and above the duties applied under the 1951 tariff regulations; the temporary abolition of the list of prohibited imports thus exerted no major influence on domestic industry.

Industrial expansion took place in almost all branches of production. Cement output continued to increase; in the course of the year it amounted to 962,000 tons, or approximately 11 per cent more than in 1953.

The Solvay soda plant at Betania produced 11,000 tons of soda ash and 10,000 of caustic soda, thus exceeding the figures for 1953 by 67 and 43 per cent respectively. Certain modifications to this plant are planned, with the aim of raising caustic soda output to 40 tons daily, in view of the demand by the textile and soap industries. At the same time, because of the need for pure caustic soda in rayon manufacture, the possibility is being studied of installing an electrolytic plant with a capacity of 15 tons daily, which will supply Colombia's two rayon mills.

The cotton and rayon sectors of the textile industry managed to replace imports almost entirely and to date have encountered no marketing difficulties, with the exception of a few enterprises which have not renewed their equipment and compete at a disadvantage. Conversely, the situa-

tion of the wool industry is less promising, particularly in the case of combed woven goods, because, despite heavy customs duties, imported commodities can compete favourably with domestic products.

In 1954, installed capacity for electric power reached 479,500 kW, representing an increase of 4.5 per cent in relation to the preceding year. Hydro-electric capacity rose by 9,000 kW, and thermo-electric by 11,900 kW. Work proceeded on the building of various plants which form part of the electric energy development programme undertaken by the Instituto Nacional de Aguas y Fomento Eléctrico. The Anchicayá hydro-electric power station, with a projected capacity of 64,000 kW, has almost reached the completion of the first stage for 24,000 kW. It will partially solve the energy problem of the Department of Cali, where industrial development has been considerable during the last few years. Work advanced on the thermal power station at Paipa, in Boyacá Department, with a 25,000 kW capacity; on the hydro-electric works in the Chiquinquirá Valley (28,000 kW), and on the hydro-electric plant at Barranquilla (30,000 kW). Existing projects and works now in process of execution will together place at Colombia's disposal an installed capacity of approximately 730,000 kW in 1962, which will satisfy domestic demand for that year according to the studies carried out by the Consejo de Planificación Económica.

Chapter VII

CUBA

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. General considerations

During 1954, Cuba's economy continued to develop on the same low level as in 1953, when gross income had fallen by 18 per cent in relation to the preceding year. In the first place, the external factors connected with the sugar market remained so unfavourable as to bring about a 5 per cent decrease in sugar production—over and above a fall of almost 30 per cent in the 1953 sugar crop—which reduced the gross product by some 18 million dollars. The quantum of exports declined by more than 20 per cent, thus making a more intensive accumulation of stocks inevitable.

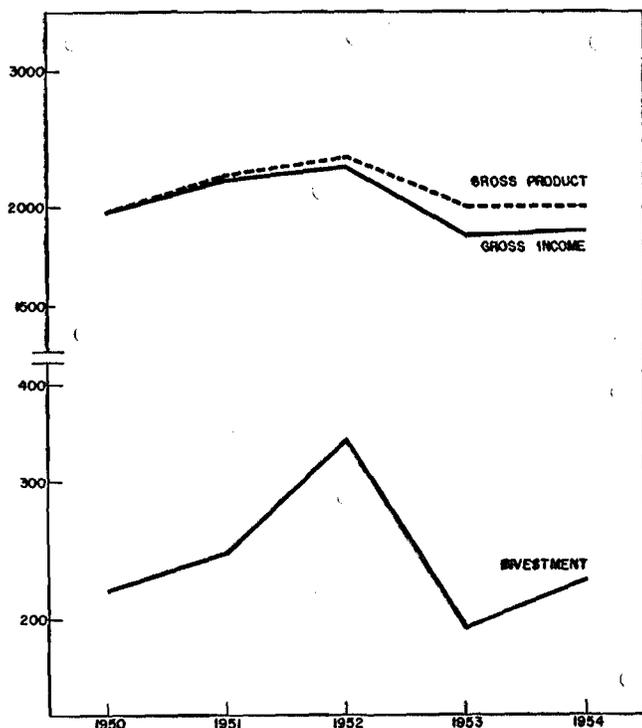
Even so, the secondary depressive effects of this trend of external factors were offset by the influence of monetary and fiscal policies, which united in maintaining real demand through the use of credit; by the compensatory influence of purchases of the sugar surplus, and of deficit spending; and by the action of other internal factors such as investment in building activities and the larger harvests for products unconnected with the sugar industry, mainly rice and maize.

Chart XXX

CUBA: INCOME AND INVESTMENT

Millions of pesos at 1950 prices

(Semi-logarithmic scale)



As a result, the level of activity was similar to that of 1953 and a slight rise in the gross product took place. But the *per capita* gross product declined once again and continued to remain below that of 1945. Hence it is clear that Cuba's economy has shown no progress for a number of years, except for occasional improvements in the sugar production sector; in addition, although internal factors may have the power to neutralize the depressive effects of external influences, as occurred in 1954, they are inadequate either to act as a dynamic element in the economy or to promote a sustained expansion in the gross product.

2. Income and its distribution

In 1954, the gross income registered an increment of almost 2 per cent, rather larger than that of the gross product. The terms of trade remained at the same unfavourable level as in the previous year, so that, in constant values, income was less than the product; but the difference in the increments indicated above was reflected in the smaller volume of exports. Furthermore, given the close relationship in Cuba between income level and imports, statistics for the latter were very similar to those recorded in 1953; the capacity to import was exceeded, and the use of the monetary reserves was thus rendered necessary.

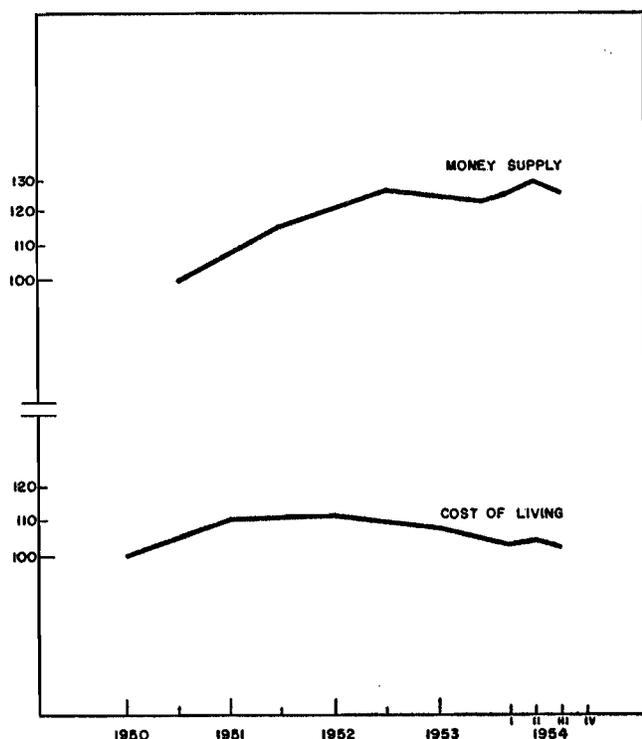
Substantial changes took place during 1954 in the functional distribution of income. The labour factor's share in net income fell from 70.5 per cent in 1953 to 66.4 per cent during 1954. There have been no new reductions in the average nominal wage rate in the sugar-producing sector since that of 5 per cent made in 1953, despite the attempts at the end of 1954 to bring it down by a further 7.5 per cent. On the whole, however, the average wage rate showed a tendency to decrease. The shortening of the period of employment in both the agricultural and the industrial branches of sugar production caused a fall in aggregate wages in this sector. The higher employment registered in other sectors, such as public works, industry, building, rice, maize, etc., was barely sufficient to absorb the additional manpower left idle by the decline in sugar; this circumstance, combined with the lower wages generally paid in these other sectors, represented an over-all decrease in salaries and wages of 4 per cent in relation to 1953. Since prices remained stable, aggregate real wages followed the same downward course.

3. The monetary and price situation

The monetary policy pursued in 1954, together with that of deficit spending in the public sector, facilitated the changes which took place in the domestic economy and helped to maintain the income level.

On the one hand, following a deliberate policy of compensatory spending, in 1954 the Government increased aggregate public expenditure on the basis of a larger budg-

Chart XXXI
CUBA: INDICES OF THE MONEY SUPPLY
AND COST OF LIVING
1950=100
(Semi-logarithmic scale)



etary deficit; public investment also rose by more than 20 million pesos. On the other hand, owing to the lack of incentives to investment in the sugar sector, private investment was mainly concentrated in building, the area on which buildings were erected during the first six months of the year being 24 per cent larger than that covered in the corresponding period in 1953. All these factors found support in the situation of the money supply.

Throughout 1954 credit and investment activities by private banks were considerable, the figures recorded being 17 per cent higher than in 1953. This increment mainly arose from credits granted to the public sector, although the private sector also required a larger volume of resources. Particular during the second half of the year, these credit operations neutralized the depressive effects of the external factors, which were much more pronounced than during the preceding year. There was thus a relative stabilization of the money supply.

Furthermore, the adequate supply of goods, both produced in Cuba and imported, established in 1954 a relative balance between the flow of real income and monetary income, so that the cost of living was slightly lower than in 1953. The stability of import prices also contributed to this result.

4. The balance of payments and foreign trade

The balance of payments for 1954 closed with a deficit estimated at 84 million pesos, owing to two circumstances of fundamental importance. Firstly, exports of goods and services fell by 100 million pesos (14 per cent) in relation

to 1953; secondly, imports decreased by only 14 millions (2.4 per cent). Exports were affected by the foreign market situation and by the price and sales policy adopted for sugar exports. The aim of this policy was to influence the world market to prevent a further drop in prices. Apart from the quota fixed by the United States, where an average price of 5.5 dollar cents per pound was obtained in 1954, Cuba was committed to the terms of the International Sugar Agreement, under which an export quota to the world market of 1.8 million metric tons of sugar as an average price of 3.15 cents per pound was fixed. Partly for lack of markets and partly through reluctance to accept the fixed price, Cuba was unable to cover its export quota, and at the end of 1954 was left with stocks of almost 515,000 tons, in addition to those of 1,483,000 tons accumulated in 1953.

Thus the foreign trade situation in 1954 was less favourable than that of the previous year. Although export and import prices were maintained at 1953 levels, the quantum of exports was 20 per cent below the level of the previous year. The capacity to import therefore deteriorated in 1954 by more than 100 million pesos, representing the lowest level in recent years and proving inadequate to cover liabilities in the balance of payments.

The slight reduction in the quantum of imports recorded in 1954 does not appear to have had any substantial effect on their composition. From the incomplete figures it may be deduced that finished consumer and capital goods represented a rather smaller proportion of total imports, while raw materials accounted for a relatively larger share.

II. BRANCHES OF PRODUCTION

1. Agriculture

The scanty data available seem to justify the assertion that agricultural production for the domestic market rose substantially during 1954, while the output of cane sugar for export once again declined.

The channelling of the development of the agricultural sector towards production for domestic consumption was due to three fundamental causes. The first of these was the fact that a considerable share of the resources used in the production of sugar cane were unemployed, because this activity declined by nearly 35 per cent in the course of two years. The second was the existence of a relatively substantial demand for foodstuffs, at present largely met by imports; and the third, the lower costs of agricultural production resulting from the decrease in the average wage in this branch of work. This last factor improved the competitive position of foodstuffs produced in Cuba in relation to imports.

The volume of cane harvested for sugar manufacture in 1954 was 3 per cent less than in 1953 and dropped by 32.5 per cent in relation to 1952, Cuba's peak year for sugar production. The 1954 sugar crop, officially calculated at 4,894,000 tons, according to preliminary statistics, was some 4,000 tons less than had been anticipated. Yet despite this smaller yield, sugar stocks in Cuba increased by over 500,000 tons during 1954. This fact alone may lead in 1955 to further restrictions on sugar production and therefore on the cane crop.

The production of countries competing in the world market for sugar rose to very high levels, approaching the peak recorded in 1953. Another unfavourable factor was the

accumulation of stocks in Great Britain—the largest purchaser of Cuban sugar after the United States—because one million tons had been bought in 1953; by 30 April 1954, stocks in the United Kingdom stood at 1,857,000 tons, as against 711,000 by the same date in 1953. Finally, in 1954 Cuba lacked the advantage of increments in its basic quota of exports to the United States. In previous years, when other areas supplying the United States with sugar had been unable to dispatch their full quota, that of Cuba increased to almost the extent of the deficit from those other areas. But, in 1954, the other suppliers not only exported their full quota to the United States but also retained surpluses which could only be sold elsewhere on the world market.

Tobacco production in 1954 amounted to 40,700 tons, as compared with 35,400 in 1953 and 42,500 in 1950, one of the peak years for this crop. Weather conditions were very favourable, especially in the *Vuelta Abajo*, *Semi-Vuelta* and *Partido* areas, so that not only were high yields obtained, but the quality of the leaf was among the best in recent years.

According to data covering eleven months, the volume of exports of tobacco and related products showed a larger increase than production. As this did not entirely avert the risk of accumulating fairly sizeable surpluses, in view of the slow rate of growth of domestic demand and the instability of the foreign market, the Government attempted to curtail production in 1955 by reducing the area under seed; but as this measure was adopted after a large proportion of the land had been already sown, the desired results may not be obtained until 1956.

The cultivation of rice continued to prosper in 1954. The harvest was estimated at 192,300 tons of unpolished rice, which represented an increase of 17 and 152 per cent over the crops in 1953 and 1950, respectively. The *Banco de Fomento Agrícola e Industrial* continued to support this branch of Cuba's agriculture. During the fiscal year 1953/54, 35.3 per cent of the current portfolio of loans were issued to rice planters; to these must be added a considerable share of the credits granted for the purchase of agricultural machinery, and, further, part of the 13.5 per cent earmarked for pignations. These credits totalled almost 7.86 million dollars out of a portfolio of 13.47 millions, so that rice was the principal object of this Bank's credit operations.

Maize production, which had been low in 1951/52, rose in 1953 to over 200,000 tons; in 1954, it increased to approximately 250,000 tons. Because it was thought that supply exceeded demand and a fall in prices was predicted, the Government authorized a sum of 200,000 dollars for purchases to be kept in bond. This was to cover two years' harvests at fixed prices. Such purchases were almost exclusively limited to the principal maize-growing area, but were sufficient to stabilize prices, though at a level lower than the official purchasing price. By the end of 1954 large surpluses had been accumulated, and a reduction was foreseen in the guaranteed price for the 1955 harvest.

The production of coffee, estimated at 35,200 tons, exceeded that of the previous year by 32.3 per cent,¹ and was among the highest in the last five years. In mid-1954, the *Instituto Cubana de Estabilización del Café* and the Ministry of Agriculture began to apply a programme aimed at

improving Cuba's coffee plantations and at guaranteeing the future domestic supply. To this end, experts from the *Federación Cafetalera Centroamérica-México-El Caribe (FEDECAME)* and from the *Centro Nacional de Agronomía de El Salvador* visited the country's producer areas, inspecting cultivation and processing conditions and giving advice to planters. Moreover, at several of the Ministry of Agriculture's experimental stations, selected strains of coffee were cultivated in nurseries. Consequently, coffee trees with a high yield can be distributed among planters in 1955, as a means of improving plantations.

An increase of more than 50 per cent in 1954 raised the production of beans to the peak figure for the last six years, or 65,000 tons, although this total is still insufficient to meet the domestic demand. The consumption deficit—met from imports—is estimated at 25,000 tons.

2. Industry

In 1953, the manufacturing industries regained some of the ground they had lost. Increases ranging from 3.3 to 29.9 per cent were registered in the production of cement, fertilizers, rayon fibres, tyres, footwear and beer. Output of vegetable oils remained low, and there was a marked contraction in that of wheat flour. There is no information available on the cotton textile industry whereby the level of activity in 1954 can be determined with any degree of accuracy.

The increase in the number of public works and in private building activity was reflected in the higher consumption of cement, as a result of which the existing plant, working at full capacity, raised production to 420,000 tons, or 3.6 per cent more than in 1953. The regular deficit in domestic production which still remains to be covered from imports has varied in the last few years from 100,000 to 170,000 tons. It is hoped that this deficit will be substantially curtailed in 1956, when a new cement plant being built at *Santiago de Cuba* enters production with an annual capacity of 112,000 tons.

The production of fertilizers expanded in 1954, encouraged by a partial recovery in demand, which had fallen in 1953. One of the producer enterprises, with assistance from the *Banco de Fomento Agrícola*, undertook enlargements which will raise the daily capacity of the sulphuric acid plant from 50 to 65 tons and will enable semi-granulated fertilizers to be obtained. Current production of superphosphates and phosphatic fertilizers in Cuba satisfies only 35 per cent of the country's requirements, the remainder being met from imports and the output of mixing plants utilizing imported raw materials.

The demand for synthetic rayon fibres remained high in 1954, so that the up-to-date *Matanzas* plant was able to operate at a rate 9.7 per cent higher than in 1953 and very nearly at its full capacity of 10,000 tons of rayon products annually. Nevertheless, textile yarn output fell by 29.2 per cent in the course of the year. This tendency towards a contraction in the production of textile yarn and an expansion in that of short fibre and tyre cord has been apparent since 1950, and must be attributed to the present critical situation of the domestic mills producing artificial fabrics, which are the greatest consumers of yarn. In contrast, the capacity for the production of cord, for which there is an active demand on foreign markets, is now fully absorbed outside the country. The company concerned has a project to raise capacity by approximately

¹ The 1953 harvest was originally estimated at 30,000 tons. The final figure proved much lower, 26,600 tons in fact.

27 per cent and resources to finance this enlargement are available.

The output of tyres for passenger cars and lorries was 20 per cent higher than that of 1953, although the coefficient of utilization of capacity remained low. With its existing capacity this industry could satisfy about 70 per cent of domestic tyre consumption, and small enlargements would enable it to meet the entire internal demand, estimated at some 250,000 units yearly. But since the end of the war this plant has been operating at 50 per cent of capacity, as the market is not determined by consumption requirements but residually by the volume of tyres imported with low tariff duties.

Although a slight increase took place in the production of beer—from 118.8 to 120.2 million litres—it was still far lower than in 1952. The industry's capacity however, was once again greatly expanded during 1954 by the installation of another brewery in Havana. It should be noted that during the four-year period 1949-52, the demand for beer had risen at an annual rate of 16 per cent.

Another industry to raise output in 1954 was that of footwear, which, according to the report of the Comisión Reguladora de la Industria del Calzado, would seem to have expanded during the first half of the year at an annual rate of 17 per cent, with respect both to leather and other types of footwear.

In contrast to industries mentioned above which increased their production in 1954, two important manufacturing branches witnessed a decline in both output and sales. The new flour mill installed at Havana in 1952, with an annual capacity of 70,000 tons, sufficient to meet approximately 45 per cent of the domestic consumption, reduced output by 26.7 per cent, possibly because of heavier imports and the need to liquidate stocks accumulated during the previous year. The same was true of the vegetable oils industry, which has been in a critical situation since the end of the war, on account of the vigorous competition from lard and imported oils as well as the high production costs of domestic peanut oil. The number of plants in operation had fallen from eight in 1945 to two in 1953; and this process continued in 1954, when only one plant remained in production.

3. Energy

Cuba is one of the few Latin American countries where no rationing of electric energy took place during the war or the post-war period. Among a variety of reasons may be included the fact that until recently capacity which had been installed as long ago as the thirties was lying idle; furthermore, the sugar industry to a large extent supplies its own energy, especially while the crop is being harvested and bagasse can be used as fuel. Only during the inactive spell between crops do a few sugar refineries consume small quantities of energy generated by public utility services. The considerable fluctuations which the sugar industry has undergone have therefore had no influence upon the availability of electric energy.

Almost the whole of Cuba's electric energy supply is produced by thermal plants. The consequent high price of electric energy for industrial purposes (about 3.5 dollar

cents per kWh) has led some industries to establish and operate their own generators.

Although Cuba's aggregate capacity for generating electric power stands at present at some 500,000 kW, public utility services have only about 250,000 kW at their disposal. The existing sugar mills use about 200,000 kW, and industrial establishments account for the remainder. In the generation of electric energy, therefore, only the sector formed by the public utility services is incorporated into the economy of the market. Outstanding among companies of this type is one which possesses an installed capacity of 225,000 kW and generates approximately 90 per cent of the energy sold throughout the island.

Between 1953 and 1954 this largest company raised generating capacity by 19.1 per cent (from 188,600 to 224,600 kW), when a new 30,000-kW unit to supply the city of Havana was established, as well as two others of 5,000 kW each and another of 1,000 kW to serve other towns. Over the five-year period 1949-53 the average rate of increase in the capacity of this enterprise stood at 5.7 per cent. The enlargements form part of a far-reaching programme which contemplates the installation of an additional 202,500 kW in the course of the next eight years.

Most of the increase of 160,000 kW will be used to meet the energy requirements of Greater Havana, which normally consumes almost 30 per cent of the total energy generated by the country's public utility services. In fact, another unit of 40,000 kW is now being equipped and is scheduled for completion at the end of 1955; a project also exists to establish two more units, each of 60,000 kW, which will enter production between 1957 and 1961. If these plans are duly carried out, by the latter date 275,000 kW will be available to the city of Havana and the neighbouring townships. This programme for the expansion of capacity also envisages the installation of 42,500 kW in the interior of the island, and comprises, among others, a unit of 10,000 kW to be added to the plant supplying the city of Cienfuegos, and another of the same capacity for the plant at Camagüey.

The energy output of the public utility services in 1954 is estimated to have been 918.6 million kWh, or 7.9 per cent higher than in 1953. This increment fell slightly below the average rate of increase of 9.8 per cent maintained throughout the preceding five-year period. Industry absorbed about one-fifth of the energy sold, that is, less than the residential and commercial sectors, but more than the Government, the municipalities and other services in conjunction. Household and commercial consumption increased by 82.6 per cent and nearly 60 per cent respectively between 1950 and 1954; industrial consumption of energy generated by plants belonging to the public utility services rose by only 22.9 per cent over the same period.

The lower rate of growth of industrial consumption, as compared with that of the other sectors, may perhaps arise from an erroneous classification of small workshops or industries in the nature of artisan trades; to the modest pace of industrialization; and to the tendency of some industrial plants to supply their own energy, as described above. The nickel-extraction plant, the factory for synthetic rayon fibres and the largest cotton textile mill are all self-supplying.

Chapter VIII

DOMINICAN REPUBLIC

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *General considerations*

The improvement in the terms of trade represented the outstanding economic feature of the Dominican Republic in 1954. Although adverse factors tended to offset this favourable trend, to a certain degree its effects were transferred to the domestic economy, particularly to agriculture, industry, and the balance-of-payments situation. The maintenance in 1954 of the high level of domestic activity which had prevailed in 1953, primarily arose from high export prices which caused a recovery of 17.5 per cent in the terms of trade.

This situation is in marked contrast to preceding years when the maintenance of domestic activity had mainly been supported by increases in the quantum of exports, on the basis of greater productive efforts for the export market, which, insofar as they were successful, had compensated for the depressive effects of a decided downward trend in the terms of trade. In 1954, the quantum of exports was lower than in 1953, particularly because sugar exports decreased. During 1952-53, the Dominican Republic had enlarged sugar refining capacity and the areas planted with cane. But the lower 1954 crop and the restrictions imposed by the quota of 600,000 tons under the International Sugar Agreement caused sugar production to remain at virtually the same level as in 1953.

Despite the contraction in the aggregate quantum of exports, the recovery in the terms of trade during 1954 enabled both the capacity to import to expand and the balance of payments to close with a credit balance, so that monetary reserves also increased.

In 1954, there was relative stability in the monetary situation, which exerted no pronounced inflationary pressure upon the economy. Domestic prices showed a downward trend during the course of the year.

Gross income appears to have risen above the level of the preceding year, not only because the terms of trade improved but also because a general increase in agricultural production, particularly in bananas and domestic consumer goods, took place.

2. *The balance of payments and foreign trade*

Judging by available data, the balance of payments recovered from the small negative balance registered in 1953. In that year, as well as in 1952 and 1950, net investments of foreign capital had been negative and in 1953 had amounted to 12 million dollars; this together with other debit items, had neutralized the credit balance on current account. In 1954, conversely, the credit balance was estimated at 24 million dollars, or 15 million dollars more than in 1953 thanks to the recovery in the terms of trade. Capital movements were also less unfavourable than

in 1953 and a greater share of the capacity to import was available to meet payments of invisibles and to provide a recovery of 16 million dollars in monetary reserves.

The capacity to import expanded by 15 million dollars during 1954. As in other Latin American countries where a high capacity to import was maintained in 1954 the reason lay in the improvement in the terms of trade, which, despite poor prospects at mid-year, still remained favourable. In the case of the Dominican Republic, however, this promising trend was not based on the main export product, sugar, but on coffee and cacao.

Sugar prices followed the downturn which had begun in 1952, while tobacco prices, although declining 4 per cent, still remained relatively high. In contrast, coffee prices continued to rise and although decreases took place in the second half of the year, there was a 10 per cent over-all increase in relation to 1953. The prices for cacao, which in 1953 had become stabilized at the 1952 level, almost doubled after a sharp rise in 1954. All these price movements determined that the general export price level for 1954 was in fact 17 per cent higher than in 1953, and this factor, combined with the relative stability of import prices, caused the recovery in the terms of trade.

The quantum of exports dropped 6 per cent in relation to 1953, mainly because sugar and cacao exports declined (8 and 10 per cent respectively). But banana and tobacco shipments expanded substantially and there was some rise in coffee exports.

Although complete aggregate figures for imports in 1954 are unavailable and their composition cannot therefore be clearly appraised, it is believed that their quantum was approximately equivalent to that of the preceding year and that capital goods increased to some extent.

3. *The monetary situation*

As in previous years, the monetary situation of the Dominican Republic was characterized by relative stability and by a complete absence of the inflationary and foreign exchange problems which are apparent elsewhere in Latin America. The favourable monetary situation was reflected in the expansion of domestic activity, in the figures for the money supply and in price stability.

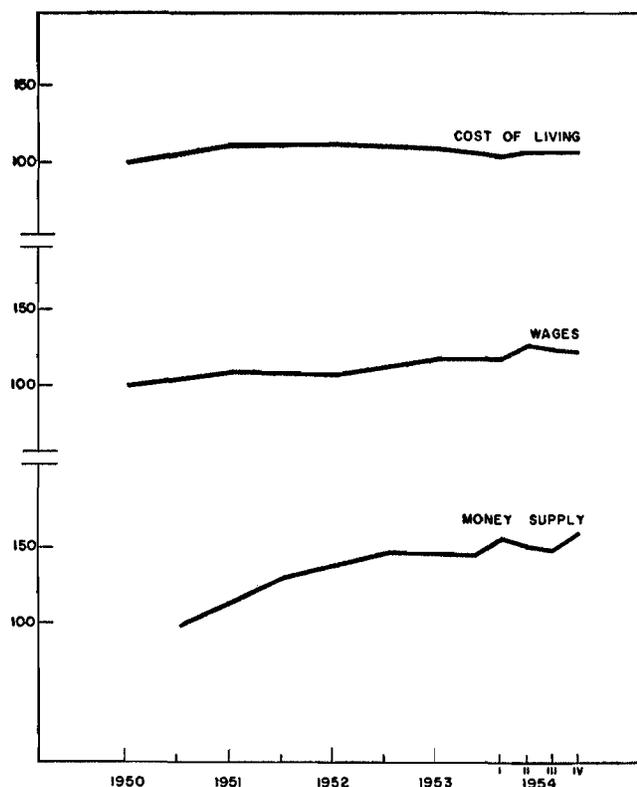
The money supply, which in 1953 had shown a slight contraction, expanded by 9 million dollars in 1954 through greater economic activity during the year and particularly because of the favourable balance of payments. This expansion, however, had no inflationary effect, since higher nominal incomes were probably offset by the growth in available goods and services.

With the recovery of reserves to the extent of 16 million dollars, the balance of payments exerted an expansive influence of the same magnitude on the money supply. The internal factors of expansion had a similar effect, for a

Chart XXXII
DOMINICAN REPUBLIC: INDICES OF THE
MONEY SUPPLY, COST OF LIVING
AND WAGES

1950=100

(Semi-logarithmic scale)



value of 11.7 million dollars, mainly arising from loans to the private sector and State-owned enterprises, since the public sector, as such, contributed a credit increase of only 1.5 millions. Nevertheless, while the various sectors tended towards expansion, internal factors reacted strongly, absorbing a value of 19 million dollars. During 1954, the increase in the money supply therefore stood at about 14.2 per cent.

The cost of living had already begun to decline slightly in 1953, after a minor upward movement in previous years. In 1954 it followed the same downward course so that by March the cost of living stood at the average level of 1948 and by the end of the year was 2 per cent below the 1953 average.

II. BRANCHES OF PRODUCTION

1. Agriculture

In 1954, agricultural production followed the same upward trend as in previous years. Of the five main export commodities, sugar remained stable in relation to 1953; banana production rose by 14 per cent, while tobacco and cacao expanded by 10 and 5 per cent, respectively. Coffee production remained virtually the same, although exports were slightly greater than in 1953, under the pressure of high world prices which tended to restrict domestic consumption. Production of these commodities

in 1954 increased in relation to that of 1948 and 1950, except in the case of tobacco.

Agricultural production for the domestic market also expanded: maize and pork availabilities in 1954 stood respectively 17 and 19 per cent above the level of the preceding year, while production of rice, roots and tubers increased by 8 per cent.

The 1954 sugar harvest did not reflect the influence of the higher investment in 1952-53, designed to enlarge mill capacity and the area under cane, because export restrictions limited production. The hurricane which destroyed Haiti's crops did not affect the Dominican Republic. Good weather, therefore, as well as favourable prices for some export commodities in 1954 and government agricultural development programmes, fostered the expansion of other crops. Agricultural development programmes concentrated on credit for farmers and agricultural machinery services at cost price, both through the Banco de Crédito Agrícola e Industrial.

In 1954, credit to the agricultural sector totalled 12 million dollars, more, that is, than in any other year except 1953, when the aggregate loans by this bank rose to 39.3 millions through the financing of an increase in capacity in the sugar industry. Of all agricultural credit granted in 1954, 66 per cent went to crop production and the remainder to livestock.

The Banco de Crédito Agrícola e Industrial includes a mechanization department which offers its services at cost price and at present mainly aims at preparation of the soil. This department has three hundred machines available, most of which are used for sugar-cane cultivation.

At the close of 1954, the Ministry of Agriculture decided to carry out basic surveys to determine which crops should be sown in the various areas and soils, with the aim of improving land utilization, raising yields and achieving greater diversification.

2. Industry

In 1954, the manufacturing industry appears to have followed the same progressive trend as in previous years, and several new developments were concluded. According to official data, investment in new industries amounted to about 2.12 million dollars, of which 20 per cent were destined for the manufacture of foodstuffs. During the year, imports of machinery, equipment, raw materials and those manufactured goods which are exempt from customs duties totalled 9.08 million dollars, which represents a substantial rise in relation to 1953.

Among the more important industrial concerns established in 1954 were: a coffee processing mill with a capital of 200,000 dollars; a saw-mill for the artificial drying of timber with an investment of 102,900 dollars and a capacity of 18,000 cubic feet annually; a paint factory, an aluminum door and window factory and a printing establishment, with 100,000 dollars capital each; starch, match and building materials plants, a pharmaceutical products laboratory and several rice mills. A blown-glass factory, with a capacity of 8 million bottles annually, also entered production, as well as an assembly plant for car batteries to manufacture 100 units daily. Other new industries include a factory to produce ham, sausages and tinned meat, with an initial output of 15.9 tons daily, and an asbestos-cement plant which will manufacture cheap slabs made of

domestic cement and Canadian asbestos for use in building low-cost housing.

Work proceeded on the construction of the shipyards at Rio Haina, including a dry dock one thousand metres long. The installation of a furfural factory using sugar-cane bagasse had progressed considerably by the end of the year, and the plant is expected to enter operation during the first months of 1955. It will manufacture about 54.4 tons daily and the furfural will be exported entirely to the United States, where it is used as a raw material in the manufacture of nylon.

Industrial projects being studied include a paper mill based on sugar-cane bagasse and with an initial capacity of 8 thousand tons annually, and, secondly, a factory to manufacture insulating and refractory materials—including bricks for kilns—to meet the requirements of the sugar and cement industries. It is expected that this latter plant will enter production by the end of 1955.

With the establishment of the Plan for Social and Economic Improvement in 1937, the foundations for the diversification of output foundations, the preparation of an "index of industrial possibilities", including 35 branches which should be given priority, enabled the development of the manufacturing industry to be met. Until 1942, however, the different phases of the Plan had not been fully applied. Following Government suggestions, three general types of manufacturing activities were considered: industries which use domestic raw materials and produce goods

for domestic consumption; industries which utilize raw materials and semi-manufactured products, whether domestic or imported, and whose production is destined for the domestic market, any surplus being exported; and, finally, industries which consume domestic raw materials, but the products of which are exclusively for export.

Another instrument used in the establishment of new industry is the Law on Industrial and Agricultural Privileges, which grants a series of fiscal exemptions, for a period of up to twenty years, to industries which process or manufacture goods on the basis of local raw materials.

The success of these measures is reflected in manufacturing statistics for the Dominican Republic, which show that the number of industrial establishments more than doubled between 1941 and 1952, increasing, that is, by 1,905 new establishments. Capital investment rose from 74.9 to 150.3 million dollars in the same period.

Among the outstanding industrial establishments which have entered production in recent years were: a cement plant with an annual capacity of 115,000 tons; three cotton yarn and woven goods mills which use domestic raw materials and have an aggregate capacity of 732,000 metres annually; a bag and rope factory which processes domestic hard fibres and can manufacture one million bags and 45,000 kilogrammes of rope annually; a factory which extracts 3 million litres of edible oil from domestic oil-seeds, mainly peanuts; and a meat packing house which can deal with 140,000 head of cattle each year.

Chapter IX

ECUADOR

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. Gross income and investment

Stimulated by the peak prices of coffee, cacao and bananas, Ecuador's economy continued to expand at a rate which was probably higher than that of 1953. A first approximation of gross income in 1954 places it at least 8 per cent above the estimated figure for the previous year. The effect of the terms of trade resulted in a contribution equivalent to 6 per cent of gross income, the highest proportion registered in the period 1950-54.

It is difficult to establish to what extent this favourable trend was turned to the advantage of investment. The only

available data are for capital goods imports, which rose by 9.6 per cent in relation to the high figure for 1953.

The volume of available goods increased sharply under the two-fold influence of the increment in agricultural production and in imports, so that the greater demand caused by higher monetary income did not have inflationary effects.

2. The balance of payments and foreign trade

(a) The balance of payments

The improvement in Ecuador's external situation had its effect upon the balance of payments, which showed a surplus of 3 million dollars as compared with a deficit of 6 millions in 1953. For the first time the capacity to import exceeded 100 million dollars, and it is probable that it reached more than 120 millions.

This favourable situation primarily arose from the greater value of the main items of Ecuador's export trade. In addition, there was a net income of one million dollars in the capital account. Judging by figures for the first half year, the inflow of foreign capital—whether official or private—appears to have recorded an increase of same magnitude and if the balance was not greater than one million dollars it was because the outflow of short-term capital from Ecuador also rose.

Net receipts of official capital stood at some 2.5 million dollars. Most of it was received from the Export-Import Bank, which authorized new loans for a total of 3.7 millions, to be used mainly for improving Quito's water supply. Furthermore, the International Bank for Reconstruction and Development granted its first loan to Ecuador, comprising 8.5 million dollars for road construction, while two further credits for a total value of 16.5 millions for other public works were being discussed.

Agreement on the problem of servicing the foreign debt has once again placed Ecuador in a position to receive new capital from abroad. If the operations being studied are carried out, the external debt will stand at around 40 million dollars, the servicing of which will not unduly burden the balance of payments if exports maintain the rate of growth achieved during recent years.

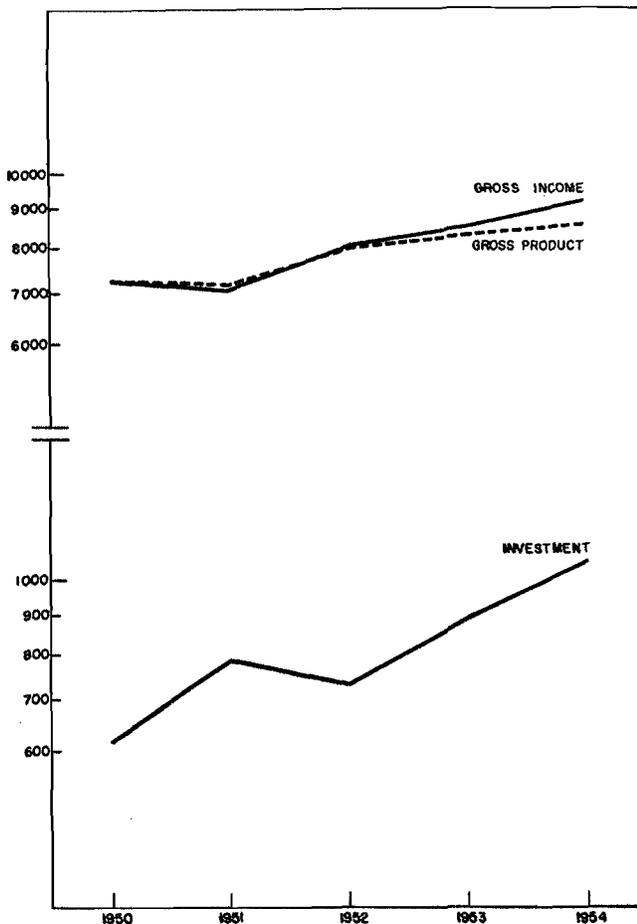
Reserves of gold and foreign exchange held by the Central Bank showed little movement during 1954. A small decline in gold was offset by the more favourable balances in payments agreements. Furthermore, there was a reduction in the trade debt.

If the balance of payments is considered by currency areas, it may be said that it shows a relative equilibrium. In 1953, Ecuador had a deficit with Europe and with some Latin American countries, but there was a surplus with the United States and with Asia. In 1954, exports to Europe and Latin America rose proportionately more than those

Chart XXXIII

ECUADOR: INCOME AND INVESTMENT

Million sucres at 1950 prices
(Semi-logarithmic scale)



shipped to the United States, although the trade balance with the latter country improved.¹

(b) *Foreign trade*

Ecuador's export trade reached peak levels during most of the year as a result of the high prices for coffee and cacao and of excellent harvests, which, with the exception of rice, were all larger than in 1953. The aggregate value of exports thus reached the highest recorded figure in recent years, although the quantum increased by only 9 per cent. Most of the greater value arose from larger exports of cacao, bananas and coffee, which were respectively 38, 19 and 15 per cent higher than those of 1953. In contrast, rice exports fell sharply, through difficulties in selling the exportable surplus because low prices prevailed on foreign markets.² Shipments of Panama hats, which are a traditional export from Ecuador, once again declined in 1954.

Falling coffee and cacao prices on the international market affected the value of Ecuador's exports from the month of August. Nevertheless, the volume of cacao exports remained at high levels and—for the first time in many years—this product once again held first place among Ecuador's exports.

Encouraged by the high foreign exchange inflow during the first half year, the import quantum registered an increase of 18 per cent in relation to 1953. Bank credit was easier and more abundant, while the regulations governing the import trade were relaxed because the prior deposit to be made by importers on the value of import licenses was progressively reduced.

The tariff reform which came into force in 1954 does not appear to have exercised any restrictive influence on the volume of imports.

The composition of imports showed no variation except small increases in the relative share of raw materials and fuels at the expense of capital goods.

The aggregate price index for exports was about 22 per cent higher than that of 1953. This increase mainly reflected the high coffee and cacao prices during the first eight months of 1954, while the moderate but steady rise in banana prices was not without effect. Since import prices remained approximately equivalent to those of the previous year, the terms of trade improved by about 22 per cent.

In contrast to events elsewhere, planters of coffee, cacao and bananas in Ecuador were able to retain most of the greater profits arising from the improvement in the terms of trade, since the share absorbed directly by the public sector (through the rise in export duties on these three products) was relatively small.

3. *The monetary situation*

In 1954, the cost of living rose by 7 per cent while wholesale prices remained steady after a slight increase in the early months, when the higher customs tariff exerted its influence. The more favourable economic circumstances—above all the improvement in the terms of trade—found expression in the increment of real gross income and of available goods, which prevented the rise in monetary

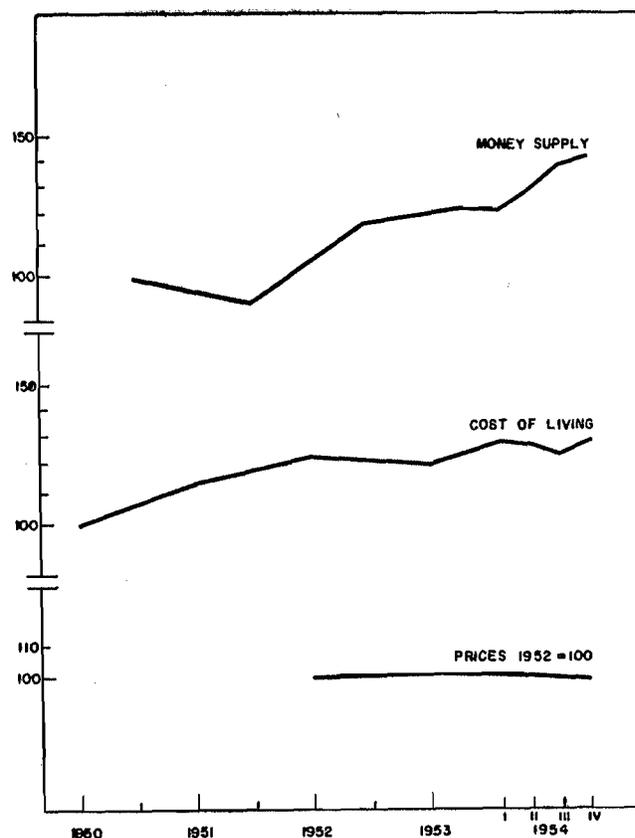
¹ Most of Ecuador's foreign trade is on a multilateral basis. Not more than 20 per cent is covered by bilateral agreements with Argentina, Chile, Colombia, France, Italy and Western Germany.

² There also very probably exists a problem of costs, since the low yields of this crop were not improved.

Chart XXXIV
ECUADOR: INDICES OF THE MONEY SUPPLY,
PRICES AND COST OF LIVING

1950=100

(Semi-logarithmic scale)



income and the resulting greater demand from having inflationary consequences.

Internal factors had a major influence upon monetary affairs, even though the original impulse came from the external sector. The action of the internal factors has been increasingly greater since 1953 and is closely linked with the policy of encouraging public and private investment and with the obstacles to such financing arising from deficiencies in the taxation system, the absence of a stock exchange and the low level of private saving. It resulted in a greater money supply—which rose by 16 per cent—and in the transfer to the investment sector of part of the benefits derived from the terms of trade. Lack of information on the development of nominal wages hinders an appreciation of the size of this transfer and also obscures any decline in real wages which may have been caused by the higher cost of living.

As regards the public sector, the policy of investment in the basic sectors of transport, energy and warehouse building continued and apparently even became more intense. Because of the regressive character of the tax system and of the shortage of transferable savings, resources to finance these investments were drawn from credit. Higher customs duties and the efforts which have been made since 1950 to rationalize and centralize the system of tax collection, have only slightly reduced the difficulties. New taxes—on coffee exports, gasoline consumption, etc.—were ap-

plied, but receipts from them were devoted to special expenditure which increased the decentralization of public finance. Finally, the expenditure on national defence reached a substantial sum. Therefore, despite the greater revenue from taxation, the deficit in the budget stood at 68 million sucres. The Government had considerable recourse to banking credit and to bond issues made on the Fondo de Regulación de Valores.³

The evolution of private investment encountered similar obstacles. Between July 1953 and August 1954, investments by development banks rose by 120 per cent while private banks increased the volume of their mortgage operations; in addition, the Central Bank was authorized to intervene directly in the status of companies established to develop the basic wealth of the country. But the realization of this policy was possible only through the issue of money. Nevertheless, to increase and to bring into circulation the available capital to finance investment, without recourse to inflationary methods, a number of measures were taken. Among them were the stipulations, firstly, that certain provincial development banks must maintain a minimum deposit with the Banco Nacional de Fomento; secondly, that mortgage bills would be issued at 9 per cent interest and, finally, that the Central Bank should be authorized to invest 10 per cent of its monetary reserves in securities in foreign currencies.

At the end of 1954, the Government presented a draft law to Congress, which has an important bearing on the development of public and private financing, at least from an institutional angle. The proposal suggests that a Comisión de Valores should be created to replace the Fondo de Regulación de Valores, whose present organization and status do not permit requirements to be met. The new body would receive ordinary income from the same sources, namely: contributions from the national budget; a proportion of customs receipts, and a share in the profits of the Central Bank. But the income from the second item would be larger and more regular. Furthermore, the Commission would be authorized to issue bonds in foreign currencies. Finally, the funds of the new body would be devoted exclusively to the economic development of the country and not to general budget expenditure, as has previously occurred.

The rate of exchange has not varied since 1953, but taxes and surcharges which applied to certain imports were eliminated. They were replaced by increases in customs duties. The system of free importation remained in force, except for a few items of merchandise not included in the official schedules which were reduced to two lists. The first includes goods for which foreign exchange is available at the official rate, while the second contains luxury articles, imports of which are subordinate to the exaction of a previous foreign exchange deposit at the free market rate. The Junta Monetaria may also demand prior deposit of the customs duties.

II. BRANCHES OF PRODUCTION

1. *Agricultural production*

Good weather conditions, the impetus of sustained external demand and a continuing development policy were

³ The situation of public finance improved during the last quarter of 1954 as a result of greater economic activity. The Government was thus able to reimburse the Central Bank for some of its short-term loans, which, in September, had reached a sum of 250 million sucres.

the factors which brought Ecuador's agricultural production in 1954 to a level 24 per cent above the preceding year's and 35 per cent above that of 1950.⁴

(a) *Products for export*

Unlike many Latin American countries, where domestic agricultural exports have encountered a market flooded with surpluses and a resulting fall in prices, Ecuador enjoyed exceptional conditions throughout 1954. In fact, three of the most important export commodities—bananas, coffee and cacao—met with no marketing problems.

Banana production continued to increase; new plantations more than offset the waste caused by disease and insufficient transport. The crop of 870,000 tons exceeded that of the previous year by 37 per cent, and, although exports increased to a lesser degree, Ecuador retained the position of principal world exporter gained in 1953.

As regards coffee, in addition to the external stimulus already mentioned, development policy fostered greater production and raised it to 28,000 tons, that is, 25 per cent more than in 1953. With the aim of stimulating and directing cultivation, at the beginning of 1954 the Government re-organized the Instituto Ecuatoriano del Café (Ecuadorean Coffee Institute). The purpose of this body is to improve crop management and to extend cultivation to new areas. Its funds are drawn from an *ad valorem* tax of 0.5 per cent on coffee exports, which came into effect during 1953.

The rehabilitation and greater care of existing cacao plantations, combined with an expansion of the area planted with varieties more resistant to pests, resulted in a harvest of 37,000 tons—the highest registered over the last five years and 44 per cent larger than that of the previous year. Although Ecuador is far from recovering the level of cacao production attained during the peak period of 1915-19,⁵ efforts have been made during recent years to rehabilitate a crop adversely affected by the world market crisis and ravaged by diseases. This task is in the hands of the Junta Renovadora del Cacao (Cacao Development Board) and other official agencies. Ample credit facilities are also available to planters. In 1954, at least, cacao once again succeeded in becoming Ecuador's staple export, having been ousted for many years by coffee, bananas and even by rice.

Rice is now the very crop which it is most difficult to sell on foreign markets. High production costs and poor quality have given rise to serious export difficulties and have discouraged cultivation. Because of the smaller area sown, the harvest fell in 1954 to 51.2 thousand tons, or about 45 per cent less than in 1953.

The cultivation of pyrethrum, a crop used in the preparation of insecticides, was recently introduced into Ecuador and the outlook is promising. Tests carried out to date demonstrate that the high moorlands, usually unsuitable for other crops, are a favourable habitat for pyrethrum. Exports, which began in 1953, amounted to 25 tons during the first half of 1954, but this figure may well be doubled in 1955.

(b) *Products for domestic consumption*

The cultivation of these products takes place mainly in the Sierra, and until 1952, showed no signs of progress.

⁴ Index calculated on the basis of 21 products.

⁵ During this five-year period, exports reached an annual average of 42,000 tons.

But this situation has altered during the last two years, thanks mainly to the Government's policy of guarantee prices and to widespread improvements in techniques. Preliminary estimates for 1954 assess production at 23 per cent higher than in 1953.

The production of maize amounted to approximately 129,000 tons and that of barley to 92,000, which implies respective increases of 35 and 16 per cent over 1953 levels. This expansion is the result of more extensive sowing as well as of improved yields.

Owing to a sustained and far-reaching development policy, wheat production rose by 14 per cent in relation to 1953, reaching 32,300 tons. In addition to the credit granted by the Banco Nacional de Fomento, other incentives were supplied by guarantee prices, import controls and the fact that the milling industry was committed to absorbing the entire domestic production. Attempts are now being made to extend wheat cultivation to certain coastal areas.

The cotton crop, encouraged by high prices, increased by 26 per cent. Not only did the textile industry purchase the 3.4 thousand tons of fibre produced in 1954, but it also acquired the surpluses remaining from the previous crop.

Owing to increased yields brought about by greater irrigation and the more extensive use of fertilizers, the production of sugar cane also showed a rise, and 55,900 tons were harvested.

Stock-breeding, unlike the other branches of agriculture, developed slowly and was unable to satisfy domestic requirements for meat, fats and milk.

(c) *Development policy*

The measures described above indicate that the agricultural sector in particular is a matter of official concern. Among the steps taken in 1954, the following deserve special mention: an agreement signed with the Inter-American Cooperative Service to initiate an extensive programme of research into wheat genetics with the special purpose of producing varieties giving higher yields and more resistant to cryptogamic diseases; plans for building silos capable of storing 62 thousand tons of dry grain; and the installation in Quito of a plant for the manufacture of organic fertilizers from waste products and garbage. The greatest importance may prove to attach to an act prohibiting landed proprietors in rural districts from owning more than four times the area they cultivate. Property in excess of the stipulated area is appropriated by the State as common land.⁶

2. *Mining*

With the exception of petroleum, mining in Ecuador is of little economic importance. Gold extraction continued to decrease and in 1954 stood at merely a fifth of the 1949/50 figure. On the other hand, silver and lead output remained similar to that of the previous year. Copper production was no longer significant enough to be included in the statistics.

Petroleum extraction rose by 4 per cent in relation to 1953 and reached some 490,000 cubic metres. About 50 per cent of the output was refined locally; but, if all

domestic needs in gasoline, kerosene and other derivatives are to be satisfied, the refinery capacity will have to be raised. Imports of fuels and lubricants are therefore increasing, while exports of crude petroleum are declining.

3. *Industry and energy*

During 1954, progress was apparent in the industrialization of Ecuador. In certain industrial sectors, new factories were established and existing plants enlarged; in others, it was a year of increased activity. Thus foodstuffs and textiles—the two most important branches of domestic industry—were produced under better conditions than in 1953. Flour mills worked at full capacity, 70 per cent of their wheat supplies (65,000 tons) being imported and the remainder (28,000 tons) being supplied domestically. The Government's decision to give preferential treatment to imports of wheat, rather than wheat flour gave fresh impetus to the milling industry, which until recently was mainly concentrated in the Sierra. In 1954, however, a modern mill in the coastal region entered production. Bran—a by-product of this industry—of which 18,000 tons are produced annually, is a potential source of fodder which had hitherto not been utilized. Sugar production amounted to about 55,000 tons, but imports were again required to meet consumption requirements.

The textile industry enjoyed an adequate supply of raw materials and a good market. A new woollen-cloth factory entered production and others for cotton and rayon were enlarged and modernized.

Among Ecuador's industries, those manufacturing chemical and pharmaceutical products took third place. Although recently introduced, this branch has not only secured a firm foothold in the domestic market, but is also a sizeable exporter. In 1954, exports were 23 per cent higher than in 1953 and had a value of about one million dollars.

Work proceeded on the establishment of the integrated pulp and paper mill which is being built at Latacunga in the province of Cotopaxi. The pulp mill was completed and it is hoped that the machinery for paper-making will be available in the course of 1955. The mill will use banana fibre, a type of straw, and sugar-cane bagasse as raw materials, and a daily production capacity of 10 tons of kraft is envisaged.

The Guayaquil cement plant produced 92 thousand tons, rather more than in 1953. In December, production capacity was increased by 20 per cent by the introduction of the new rotary kiln. Meanwhile, progress was made in the installation of the Ríobamba plant which will enter production in 1955. In the course of the year, about 10,000 tons of cement were imported, principally to meet the demand of the public sector.

In 1954 the shortage of electric power became more acute. Ecuador is among the Latin American countries with the lowest installed generating capacity, inasmuch as its *per capita* capacity is only 15 watts. In October, the city of Guayaquil began to benefit from a new 5,000 kW steam turbine. At Latacunga, one of the districts which is best supplied with electric energy, new power stations with a total capacity of 1,600 kW entered operation. Small hydro-electric plants were also constructed in the province of Carchi to provide the northern districts with light and power. In the aggregate, the country's available installed capacity in 1954 stood at 52,000 kW, or 14 per cent more than in 1953.

⁶ In actual fact, this represents a clarification of the terms of the Common Land and Colonization Act of 1936, whereby any lands remaining uncultivated for 30 years were declared State property.

Chapter X

HAITI

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *General considerations*

In October 1954, Haiti suffered from a violent cyclone which caused extensive losses to the domestic economy and in particular to agricultural production. Nevertheless, its effects were not apparent in exports for the year because the crops to be shipped abroad had been harvested previously. Conversely, its consequences will affect the results of agricultural production and exports in 1955.

Since the level of economic activity is mainly dependent upon the export volume and prices of a small number of agricultural products, Haiti's economy is extremely sensitive to fluctuations in the export trade. But this was not the case in 1954, because the share of coffee, which represented 50 per cent of all exports until 1950/51, rose to 78.4 per cent in 1953/54. The cause lay in the increase in coffee prices during 1954, as well as in the greater quantum exported, which was 37.7 per cent higher than the total in 1952/53. At the same time no variations took place in exports of sisal, sugar, cacao and cotton.¹ The peak production and export of coffee thus maintained the level of income accruing from external sources, its expansive effects being strengthened by foreign tourist receipts and by the continuation of substantial expenditure on public works. These elements all reacted upon domestic economic activity. Meanwhile, the balance of payments appears to have been positive in 1954 because of the assets in the trade balance.

2. *Foreign trade*

In 1954, Haiti's foreign trade returned to the favourable trend of 1951-52, which had been interrupted only by the lower quantum of exports in 1953, with their sharp influence on the capacity to import during that year. The prices for coffee during the period when it was ready for export, as well as those for sisal and other products, showed that the over-all level of such prices recorded a 10 per cent increase in relation to 1953. The terms of trade followed a similar course, and, together with a recovery of 29.3 per cent in the export quantum, raised the capacity of exports to pay for imports in 1954 to a record for the last few years. It is thus clear that the major influence was exercised by the greater quantum of coffee exports.

The conditions under which the capacity of exports to pay for imports developed, in their turn allowed imports to expand at a little over 6 per cent in relation to 1953, while their prices remained at a level similar to the preceding year's.

II. BRANCHES OF PRODUCTION

1. *Agriculture*

During the farm year 1953/54, the production of some of Haiti's important crops was higher than in 1952/53. The yield of coffee rose by about 35 per cent above the

¹ Together with coffee, these products represented more than 90 per cent of all exports.

previous year's level and was the largest in recent years. This growth did not arise from greater investment, but in fact reflected the effects of well-distributed rainfall throughout the producing areas in 1953, of the characteristic production cycle of coffee and of the greater care devoted to this crop because of the high world market prices.

Sisal production, which had reached its peak in 1949/50, when the downturn took place as a result of lower prices, in 1953/54 improved slightly on the previous crop. Nevertheless, world prices for this fibre continued to decline in 1954. Variations in the volume of the sisal crop during this short period were due to farmers' decisions rather than to changes in the area sown or accidents of climate, for sufficient plantations were available to yield a tonnage substantially higher than the current production.

The cacao harvest was somewhat larger than that of 1952/53 because more care was given to the cultivation of a product which commands good prices on the world market. But the extent to which cacao production increased in the last two years was lower than the rate between 1947/48 and 1952/53.

Cotton production had declined since 1948/49 through a plague of the boll weevil, which is extremely difficult to control because of the large number of small plantations and because the perennial strains of cotton grown in Haiti allow the insects to reproduce throughout the year. In 1950/51, the crop had dropped to less than half its normal size, but since that date a slow recovery has taken place. In 1953/54, production returned to normal, stimulated by the establishment of a new yarn and textile mill, as well as by the greater output from another already existing, which caused new plantations to be made and more effective pest control to be carried out.

In contrast, production of sugar and bananas in 1953/54 was lower than in the previous year. Bananas ceased to be a staple export item when the companies concerned left the country in 1951 and the irrigated plantations in the Antibonite Valley disappeared. Banana exports have dropped to occasional shipments which became even smaller each year. Because a prolonged drought occurred in the Cul-de-Sac Valley, where almost all Haiti's cane for sugar manufacture is grown, production in 1953/54 represented one of the lowest recently recorded. It is interesting to note that the domestic consumption of sugar produced by the centrifugal process has expanded extremely rapidly since the Second World War, rising from an average of 7,000 tons in 1940-44 to about 30,000 in 1953-54. Since the production capacity has hardly altered, the increased consumption has affected recent exports to so great an extent that in 1953/54 only 15,000 tons were shipped abroad, as compared with an average of 22,000 between 1947/48 and 1952/53. To avoid this difficulty, a new sugar mill was installed in 1954, which will enter production in 1955 with an annual capacity of some 20,000 tons of raw sugar.

The effects of the cyclone "Hazel" in October 1954 are not reflected in the figures used here, but their influence has begun to appear in exports for the fiscal year 1954/55. In fact, exports for December 1954 and in January and February 1955 totalled only 12 million dollars as compared with almost 20 millions in the same period of the preceding year. It is estimated that the damage to coffee plantations was so great that exports were reduced to some 18 thousand tons in 1954/55. The sugar harvest will also be affected in the Cul-de-Sac Valley, where a second consecutive year of drought has also begun.

The production of foodstuffs for domestic consumption suffered substantial damage, particularly in the south of the country, where about 30 per cent of the potato crop, 20 per cent of that of maize and 20 per cent of that of malanga (a farinaceous tuber) were lost. The drought which followed the hurricane made a second sowing of these crops impracticable, and, despite the assistance received in the form of international gifts of food, there were severe shortages in many areas of the country.

No accurate statistics exist for the production of foodstuffs for domestic consumption in Haiti; but it is thought that the pressure of the growing population upon supplies has necessitated a steady expansion of crops for domestic consumption, which are thus encroaching upon the resources available for export production. During the last few years, the Government's agricultural policy has been directed towards raising productivity through a better utilization of Haiti's natural resources, increasing the standard of living of the rural communities and providing for their rehabilitation through the organization of co-operatives. These long-term objectives contained in the agricultural section of the Government's expenditure programme also include the improvement of livestock through the establishment of three stud farms, where it is hoped to obtain a suitable cross-breed with zebu for a better meat yield, and with Brown Swiss and Jersey cows to improve the quality of the milk.

Public works for agricultural improvement now being carried out include the outstanding project in the Antibonite Valley, where the engineering works will be concluded by the end of 1956. In addition to increasing the country's electric power capacity by some 38,000 kW, it will be possible to irrigate some 35,000 hectares of which the greater part is at present semi-desert. Almost half this land is composed of saline soil and must be improved. Since the work of selecting appropriate crops for this new agricultural area, the task of clearing and levelling the land and the organization of new farms do not proceed at the same rate as the engineering works, the Antibonite project, in which more than 30 million dollars are invested, may well prove costly during the first years of exploitation.

2. Industry

Manufacturing industry continued to develop in 1954 within the narrow bounds characteristic of Haiti, although

some plans were completed and work was begun on others during the course of the year.

At the beginning of 1954 the first cement plant entered production with an annual capacity of 50,000 tons. It began by using clinker imported from Belgium; later, when the clinker furnace began to operate, it drew exclusively upon local raw materials. As cement consumption in Haiti represents 35,000 tons annually, when the plant reaches full capacity it will cover the present demand and leave a surplus which can probably be exported to neighboring countries. The price of domestic cement in Haiti is 20 per cent lower than that of the imported product.

Another industrial undertaking which was opened in 1954 was the factory for sacking from sisal. Production stood at 1,300 sacks daily and it is expected that maximum capacity (2,000 sacks) can be reached in the future. But this will be sufficient to cover only a fifth of the domestic demand, estimated at 3 million sacks each year. Whether production of sacking can be increased by enlarging the factory appears to depend upon the possibility of a further capital outlay, inasmuch as domestic fibre production exceeds by 10,000 tons the quantity required to manufacture 3 million sacks.

A further development in 1954 was the opening of a washing soap factory with a capacity of 200 cases produced each 8-hour shift. In addition, factories for glass and china articles, pharmaceutical and milk products and cigarettes entered production.

Among the plants being built during 1954 were two new cotton textile mills, one of which entered production at the end of the year. The existing plant for cotton yarn and woven goods operated at a level 13.6 per cent higher than that of 1953, while the factories for ready-made garments, piece-goods and cotton knitwear increased their sales by 55 and 16 per cent above the figures for 1951 and 1953 respectively.

Awaiting ratification by the Senate is a contract between the Government of Haiti and a United States petroleum company for the installation of a refinery. According to the draft plans, it will have a refining capacity of 1,500 barrels of crude daily. The aggregate investment will run to approximately 950,000 dollars.

Towards the end of 1954 a credit of 28,000 dollars was granted to establish a tannery, for which the Government will be responsible, in order to train personnel in modern methods of tanning.

These new establishments and the plans for future progress imply only modest development along general lines, for if the recently established sugarmill and the cement plant are excluded, all the others together represented a total investment of 1.5 million dollars, and only four of them provide work for more than 50 employees.

Chapter XI

MEXICO

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *The monetary devaluation and its background*

Income, consumption and investment, as well as the balance of payments and relative prices and costs between the various sectors of the economy, showed marked changes during 1954. The principal influence was the sharp and sudden devaluation authorized on 17 April which raised the Mexican peso quotation from 8.65 to 12.50 per dollar, an increase of 30 per cent. The repercussions of devaluation were immediate and profound, above all because Mexico has only one exchange rate, which is entirely free, in contrast to some other Latin American countries where depreciation has taken place little by little and is generally spread over multiple exchange systems which have weakened its severity.

The rapid growth rate of the Mexican economy, which in 1945-51 had represented an annual average increase of 3.8 per cent in *per capita* income, was interrupted during 1952-53. For a number of reasons, 1954 in fact opened with a choice either of maintaining the exchange rate by measures which would prolong the depression or of sacrificing the exchange rate to recover the previous pace of economic development. The latter course was adopted and the par value of the Mexican peso changed accordingly. A number of credit and fiscal measures were taken to encourage economic activities; to their effects were added the influence of agricultural production which was considerably above the level of the previous year. These factors helped to reverse the trends observed in 1953 and, from mid-1954, a substantial rise in gross income was evident. Towards the end of the year, the economy appeared to have adapted itself to the new exchange rate, while immediate prospects showed a revival of development within normal monetary conditions.

(a) *The background to devaluation*

During 1952, Mexico's real gross income had increased less than the population and in 1953 it declined by approximately 3.2 per cent. Two distinct phases were apparent during 1953. In the first half of the year, official policy was aimed at balancing the fiscal budget and containing the threat of inflation, which also coincided with a deterioration in the balance of payments. The measures for financial austerity mainly led to a slackening of public investment. The dynamic role which such investments play in Mexico's economy caused these measures to have a depressive effect upon real demand and the general level of activity. Nevertheless, the private sector enjoyed credit which was more readily available and more abundant, loaned with the objective of encouraging private investment and of thus reconciling the need for financial and monetary equilibrium with the desire to avoid restricting economic development.

The consequent tendency towards depression led during the second half of the year to a change in fiscal policy, while public investment was raised. But the influence of the initial contraction, which was partly psychological, could not be neutralized. Nor could public investment for the whole year be prevented from declining by 9.7 per cent (at current values), to which must be added the deterioration in the terms of trade (10.1 per cent). These events adversely influenced private investment and the over-all situation on the money market. As a result of similar general factors, consumer demand had also fallen during 1953.¹

In 1953, the monetary situation and the balance of payments had presented contradictory trends and some symptoms of disequilibrium, which had obviously arisen from the domestic economic situation and not from external factors alone. The money supply had remained more or less stable during the first half of 1953, with a slight tendency to decrease, but, accompanied by the revival of the public expenditure programme after mid-1953, it rose rapidly from the month of September. At the end of the year, it was 10 per cent greater than three months previously and almost 9 per cent higher than at the close of 1952. The direct causes of this increase in the money supply may be found in the credit granted to the public and in the rediscounts offered by official banks, which were used to support bonds and to obtain funds for agriculture. Nevertheless, greater public expenditure also had an influence, because the Government used methods of deficit financing which were reflected in the rise of bank loans to the public sector of 372 million pesos during the last quarter of 1953. A further factor in the increase was a small seasonal recovery of monetary reserves.

The combined effects, as well as the decline in private investment, led to a situation of exceptional liquidity towards the end of the year. This, in turn, represented a serious danger for monetary reserves so long as the authorities continued to give full support to the market for government bonds and, to some extent, for private bonds. Monetary events in Mexico had previously demonstrated that pronounced liquidity of this nature might lead to strong pressure for greater imports and a substantial outflow of capital abroad.

The Government was faced by the problem of eliminating the fiscal sources of the expanding money supply. This required very progressive taxation modifications, principally based on income tax, capable of gathering resources for the public exchequer to aid non-inflationary expenditure. Efforts could also be made to cover the deficit by a greater use of international credit lines for certain public

¹ See the *Economic Survey of Latin America, 1953*, pp. 18-19 and 96-100.

works and official development plans.² Finally, another possible course lay in continuing deficit financing and in offsetting the repercussions on the balance of payments by restricting imports. The first solution was rejected for several reasons, while the second appears to have been discarded as an element of financial policy. The third course, although it gave rise to basic objections on the grounds that it would increase liquidity and intensify the threatened disequilibrium, was finally chosen, and was followed during the last quarter of 1953, even though adequate restrictions were not imposed on imports.

(b) *Immediate causes of devaluation*

At the beginning of 1954, public expenditure remained at the high level of the closing months of 1953, while fiscal income did not grow in the same proportion because of the general situation. Unofficial sources estimated that a budget deficit of some 1,000 million pesos might occur, unless an exceptional improvement in the general level of activity took place. This fact, as well as low private investment, caused the abnormal liquidity to continue.

At the same time imports remained high and began to represent a capital outflow of some size. The balance of payments closed in March with a deficit of almost 22 million dollars, despite the fact that the current account was balanced. The deficit becomes very significant when it is recalled that in 1953 it had stood at a total of 33.5 millions and at 107.4 millions in the current account. From December 1953, in an attempt to reduce the pressure of imports, the Government had authorized tariff increases, while export duties on some products were withdrawn in February 1954 to encourage shipments abroad.

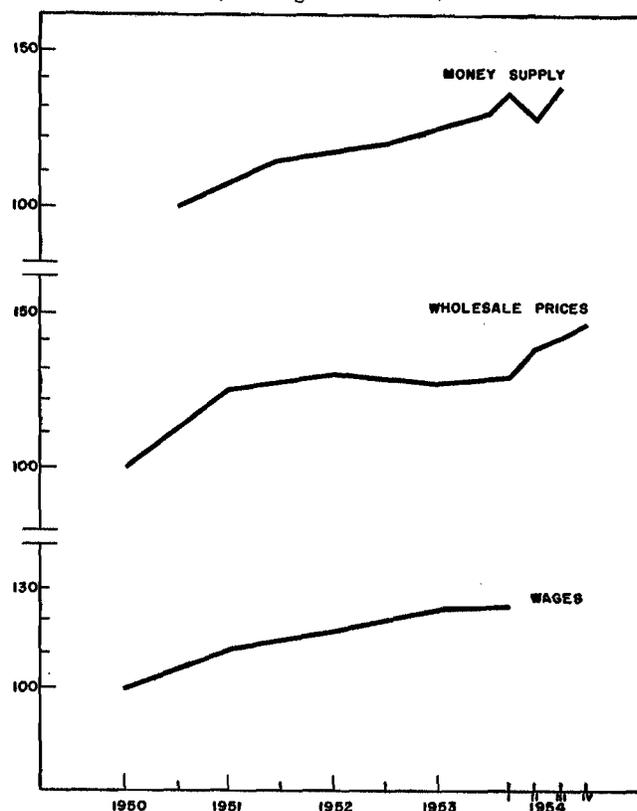
At the end of March and beginning of April, the disequilibrium caused by the psychological factor—which is very easily aroused in Mexico through the intimate trade and banking relations with the United States—became more acute, so that a new and greater outflow of capital took place. In April, payments made for purchases of railway and petroleum equipment and the accumulated deficit of 91 million dollars in the balance of payments together constituted an exceptional drain on monetary reserves. The flight of capital between March and April was unofficially estimated at more than 30 million dollars, much of which left the country after devaluation.

The aggregate money supply fell by 241 million pesos during April, because of the preponderant influence of the balance of payments upon the internal factors of expansion, despite the exceptional magnitude of the latter. Bank loans and drafts rose in one month alone by more than 1,300 million pesos, because of the rediscounts offered by the Bank of Mexico to offset the liquidation of bonds, which had taken place for speculative purposes, and to finance the capital outflow.

These conditions firstly obliged the Government to maintain the high level of public expenditure with very little expectation of increasing its resources and, secondly, involved a situation which was considered as critical for foreign trade, the balance of payments and monetary re-

² During 1952, the net inflow of official capital from abroad stood at 21.5 million dollars. In contrast, there was virtually no such inflow during 1953, because 31.6 millions were available and amortization (including consolidated foreign indebtedness) covered 31.2 millions. In 1954, this income showed a credit balance of only 3.9 million dollars.

Chart XXXV
MEXICO: INDICES OF THE MONEY SUPPLY,
WHOLESALE PRICES AND WAGES
1950=100
(Semi-logarithmic scale)



serves, particularly with the threat of a substantial flight of capital. A continuation of these circumstances required the adoption of measures to safeguard the balance of payments and monetary reserves. As a result, the Government in consultation with the International Monetary Fund, decided that devaluation of the par exchange rate was the most suitable course.

2. *Supplementary measures and fiscal and monetary policies*

The unexpected devaluation of 30.8 per cent, in terms of gold, which took place without the public's being prepared psychologically, naturally caused fairly rapid reactions in the general economic sphere and in the level of prices. The Government did not hesitate to adopt a series of fiscal and monetary measures designed to curb rising prices and to mitigate the impact of the required adjustments by introducing them gradually into the various sectors of the economy. One immediate concern was to offset the loss in the general purchasing power of the public, caused by devaluation; in addition, an attempt was made to absorb foreign exchange earnings from export activities, which might have caused the sectors involved to experience a demand that would have been excessive in comparison with that of other branches of the national economy.

To achieve this effect, an *ad valorem* export duty of 25 per cent was immediately imposed, which aimed at absorbing approximately 80 per cent of exporters' foreign ex-

change earnings. It left a sufficient margin to compensate for any increase in costs and, at the same time, acted as a stimulus to production and exports. This method was similar to that adopted after the devaluations of 1938 and 1948. The export duty was handled in such a way as to allow special consideration to be given to those cases most seriously affected by devaluation, and without restricting the export quantum.

The export duty also represented a large source of revenue, as it had in 1949, when receipts accruing from a similar duty were of considerable assistance in balancing the budget and in carrying out an over-all stabilization policy.³ In 1954, this additional duty yielded a total of 939.1 million pesos, and contributed in large measure to meeting the revenue requirements of the Federal Government which had risen as a result of devaluation.

The Government also took energetic action on the question of imports, imposing further restrictions on all commodities considered as luxury or non-essential goods. Imports of certain raw materials and other products were subject to supervision and even required special licences. These measures, and the rise of 44.5 per cent in the domestic price for imported goods, served to discourage imports.

The credit and fiscal policy pursued was designed to conform to these foreign trade measures and, at the same time, to give an impetus to economic activity. Initially, a cautious credit policy was directed towards the discouragement of purely commercial or speculative activities, and favoured production in so far as the economy was able to adjust itself to the effects of devaluation. But, in view of the large crops which were forecast for the third quarter of 1954, the monetary authorities allowed a moderate expansion to take place. The improved budgetary situation in the second quarter of the year, the favourable reaction of production, and the gradual return of confidence enabled a policy of expanded credit to be adopted, with fewer fears of sustained inflation. The average increase in the money supply for the whole year stood at 10.6 per cent, and 11.4 per cent for the period from April to December. The expansion of credit in the private sector was mainly channelled towards industry (58 per cent) and agriculture (25 per cent), while smaller figures were recorded for commerce and mining. In contrast, the money market, which was virtually deprived of liquidity after devaluation, recovered only in relation to the degree of confidence regained and to the amount of capital repatriated.

The most important step taken by the Government in its taxation policy was the granting of fiscal facilities to encourage the reinvestment of profits and to permit the accumulation of greater depreciation reserves, thus preventing devaluation from generating fictitious profits, to the detriment of Mexico's investment level. As a stimulus to private investment, the Government endeavoured to improve the psychological climate which, for some months, had prejudiced the balance of payments and domestic equilibrium. These efforts were also aimed at encouraging the collaboration of foreign capital in the development of the national economy.⁴

Almost immediately after devaluation, the Government announced its intention of raising the salaries of public

employees and called on the commercial and industrial sectors to grant wage increases of at least 10 per cent. In many instances the wage increments were even greater. These measures tended to maintain demand—at least for basic consumer goods—at a constant level; they were supplementary to similar measures applied to agriculture, in particular the rise in minimum guarantee prices for the winter crops of maize and beans—the staple commodities of Mexican agriculture.

Lastly, the Government made known its decision to increase expenditure on investment, establishing work priorities so that all activities which were not of immediate urgency or of high productivity should be eliminated. Total public expenditure increased from 4,551 million pesos in 1953 to 5,574 millions in 1954, that is, by 22.5 per cent, while total investment by the public sector, including federal agencies, State enterprises and decentralized institutions, rose in nominal terms from 3,102 million pesos to 4,061 millions, or by more than 38 per cent. In real terms, at 1950 prices, the latter figure represented an increment of 12.5 per cent.

3. Effects of devaluation

(a) *The trade balance and the balance of payments*

Devaluation and the supplementary measures which were adopted influenced with varying intensity the credit and debit items of greatest elasticity in the balance of payments. Over-all equilibrium was restored by the end of 1954, while the level of monetary reserves in the preceding year was virtually regained.

The quantum of exports rose by only 1.7 per cent. Since the level had been high throughout 1953 and during the first quarter of 1954, a much greater increase could not be obtained in so short a period. Moreover, because a 6.3 per cent deterioration in the terms of trade took place, the capacity of exports to pay for imports fell by 4.7 per cent. Owing to a 10.1 per cent decline in the terms of trade during 1953, the capacity had then fallen by 1.7 per cent.

Imports, which were not only more seriously affected by devaluation but which were also subject to restrictions and higher customs duties decreased by 5.8 per cent in real terms. Further, good wheat and maize harvests almost eliminated imports of these cereals in 1954, a factor which influenced the import contraction.

The reduction in the quantum of imports modified their composition. The characteristic feature was the decline in imports of consumer goods (25 per cent), their share in the total falling from 34.9 per cent in 1953 to 28.2 per cent in 1954. Although all items were affected, the downward movement became particularly noticeable in foodstuffs (40.1 per cent). These reductions represented a saving in foreign exchange of 63.4 million dollars at current prices.

The quantum of capital goods imports fell by 4.1 per cent in relation to the already declining level of 1953, mainly because imports were lower in the transport sector.

³ See the *Economic Survey of Latin America, 1950*, "Recent trends and events in the economy of Mexico". (Document E/CN.12/217/Add. 8, 1951), pages 20-21.

⁴ Among the investment activities of international agencies during 1954, two deserve special mention. Firstly, a loan of 61 million dollars was granted by the International Bank for Reconstruction and Development, for the renovation of the Pacific Railway. Secondly, disbursements of the credit for 20 million dollars authorized by the Export-Import Bank in 1951, also for the improvement of railway transport, were resumed.

Nevertheless, the share of capital goods in aggregate imports was able to rise from 42.2 to 43.6 per cent.

There was an increase in the import quantum of fuels, lubricants, and raw materials—chiefly textiles, rubber, pulp and chemicals. These commodities all accounted for a higher percentage of aggregate imports.

Principally because of the contraction of imports, the 1954 trade balance showed a deficit of only 168 million dollars at current prices, as compared with about 229 millions in 1953. The net assets accruing from tourist trade earnings remained at a slightly lower level than in 1953. The outflow representing interest and profits on foreign investment rose by 28.6 per cent. The net result of the movement in the international current account during 1954 was a debit balance of 73.7 million dollars, or 33.7 millions less than in 1953.

The movement registered in the balance of payments on capital account—including unrecorded transactions, such as the outflow and repatriation of capital—showed a substantial negative balance at the time of devaluation and during subsequent months, but a credit balance of 64.8 million dollars was visible at the end of the year.

In consequence, a virtual equilibrium in the balance of payments was reached during the year. After the vicissitudes of the first six months, the aggregate net balance represented a deficit of only 8.9 million dollars.

(b) *Agriculture*

Although devaluation had no influence on the sowing of the main crops (cotton had already been planted and the land prepared for seasonal crops, such as cereals), or on the actual harvest, agricultural prices, income and investment were affected.

Production of the principal domestic consumer commodities—chiefly maize, wheat and beans—reached peak levels, owing to the abundance and good distribution of rainfall, to the numerous emergency programmes for official agricultural credit and to the continuation of irrigation works and of improvements in agricultural techniques. The market was therefore amply supplied and the prices of these crops were not affected by the new exchange rates. Conversely, domestic sales prices of chick-peas, cotton, coffee and tomatoes, which together account for 80 per cent of Mexico's agricultural exports, rose considerably, in some cases by more than 40 per cent; later, they were stabilized at lower levels, which were nevertheless higher than those prevailing before devaluation. Prices of capital goods and, to a lesser extent, of consumer goods bought by farmers received the full impact of devaluation and showed increases of as much as 52 per cent (agricultural machinery, for example). A decline thus took place in the relative prices of the agricultural sector, which especially affected farmers growing produce for the domestic market. In some districts these changes might lead to the replacement of crops for domestic consumption by others which are more profitable, unless Government development programmes operate with more vigour. In any case, as regards aggregate agricultural income, greater production fully counterbalanced the unfavourable movement of relative prices.

The value in pesos of agricultural exports rose 31 per cent—from 2,026 millions in 1953 to about 2,700 millions in 1954. Of the value represented by the latter figure, 38

per cent had already been exported when devaluation took place. One per cent of the greater export earnings represents the improvement in foreign prices and a further 2 per cent arose from the larger volume of exports; the remainder corresponds to the profit on the exchange rate. But exporters and farmers did not reap the entire benefit, since the State absorbed a share through the *ad valorem* duty on exports. Budgetary revenue derived from agricultural exports rose from 291 million pesos in 1953 to 506 millions in 1954, so that the income of agricultural exporters, after tax deduction, stood 24 per cent higher, in aggregate terms, than in 1953.

(c) *Industry, mining and energy*

Restrictions on imports and increases in the price of imported commodities after the devaluation diverted a major share of the domestic demand for manufactured goods towards domestic production. Despite cost and price adjustments, almost all industrial sectors showed greater activity in the second half of the year. The quantum of manufacturing production rose by more than 6 per cent in relation to 1953.

Higher prices for imported raw materials led to greater use of those of indigenous origin and more research in this direction.

Conversely, the problem of replacing equipment and industrial machinery became more serious after devaluation, since the real value of reserves accumulated for this purpose was reduced; it was expected, however, that the fiscal measures adopted would assist in finding a partial solution. Rising costs during 1954 also exerted pressure on the financial position of industries which were unable to expand sales. Other industries—for example most of the capital goods producers—which had a substantial capacity lying idle, which were capable of replacing imports or which had a high proportion of fixed costs in relation to the total, were able to offset higher costs to some extent by raising production or the yield per unit of factor employed.

Mining, which developed somewhat slowly during 1953 and 1954, could have been stimulated by devaluation, but both rising costs and the new export duty absorbed a major share of the exchange rate profit, apart from the fact that some consumer countries impose duties on Mexico's chief mineral exports. This state of affairs discouraged investment and prospection, with the result that production was limited to mines already in operation.

The difficulty of obtaining independent financial resources and the growing pressure of costs upon the operating capital of electric power companies have for some years limited investment possibilities. Recourse to public funds has become increasingly necessary and has led to public intervention, which, although substantial, is still inadequate to meet the aggregate demand for electric energy. The devaluation in 1954 aggravated this financial problem and disturbed the equilibrium which had ultimately been achieved by some of the power systems through raising the rates. The cost of amortization and interest on foreign loans, as well as that of equipment and machinery, increased in the same proportion as devaluation; although costs of labour, fuels and other materials rose less, they are still being adjusted. To counterbalance this rise in costs, several changes in power rates were decreed which, in the area of heaviest consumption, repre-

sented an increase of 24 per cent for industrial services, 17 per cent for residential consumption and an average of 21 per cent for all sectors.

4. *The general rate of economic development and the distribution of income*

After the first months of economic uncertainty following devaluation, and while the necessary domestic adjustments were still taking place, economic activity as a whole found incentives to recover from the low levels of 1953 and of the first six months of 1954. The gross product rose 7 per cent above 1953 in real terms, thus reversing the downward movement of the preceding year and recovering the high rate of development prevailing prior to 1952.⁵

With the exception of mining, which declined slightly in relation to 1953, all the sectors of Mexico's economy expanded during 1954; agriculture rose by 19.5 per cent; industry by 6.5 per cent; and the remaining sectors by 4.0 per cent.

Apart from the effects of the slight deterioration in the terms of trade, gross income followed the general upward trend, increasing 6.4 per cent above the 1953 level and 3.1 per cent above that of 1952. The latter percentage is less than the cumulative rate of demographic growth for the last two years.

The product-capital ratio for the whole economy rose by about 2 per cent over the low level recorded in 1953, but it was 5.5 per cent below the 1952 figure. Although many activities achieved higher production through a more intensive utilization of existing capacity, other factors prevented a greater expansion of the product-capital ratio. Firstly, although the available stock of capital grew by 4.6 per cent in 1954, the only increase over the 1953 level, within aggregate investment, took place in public investment, where productivity is generally indirect and has a longer term. Secondly, most of the private investment—which in the aggregate remained at the 1953 level—took place during the second half of the year and was not, therefore, fully transformed into increases in production. This may occur in the near future, if effective demand continues to grow and thus encourages a more intensive use of productive capacity.

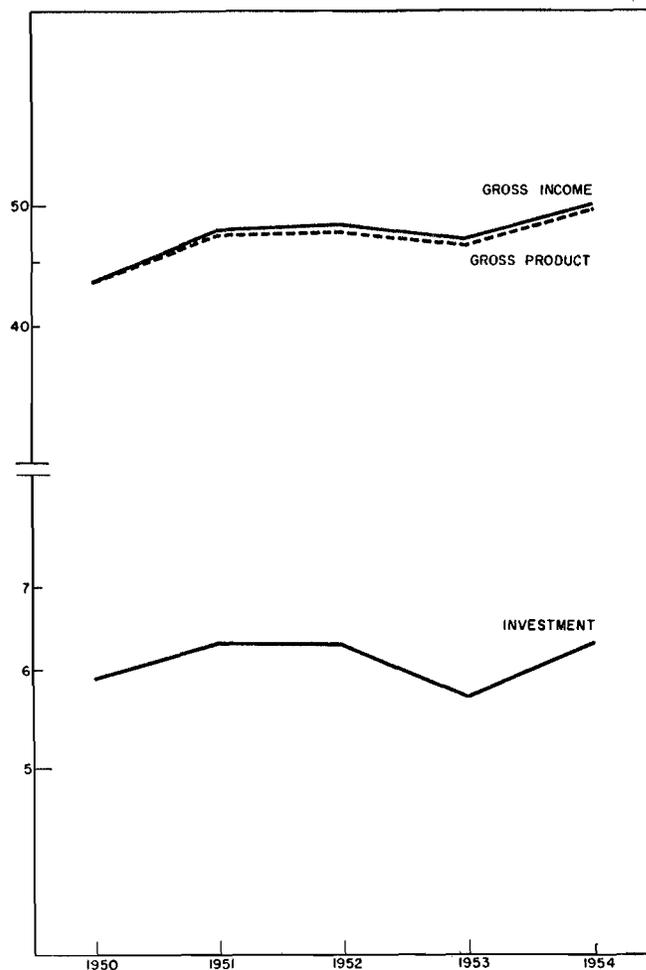
Effective demand was greater in 1954 than in the preceding year, owing to higher levels of investment and consumption. Greater public investment, which caused the rise in total investment, contributed directly to the expansion of effective demand. At the same time, the indirect effects of investment on employment and income, added to the rise in agricultural income, created an expansion of consumption. This expansion amounted to around 4.8 per cent at 1950 prices. However, inasmuch as total available goods increased at a higher rate than consumption, the share of the latter within available goods declined slightly—from 87.8 per cent in 1953 to 87.6 per cent in 1954.

Although employment increased and average real wages remained at approximately the same level as in the preceding year, the share of the labour factors—wages, salaries and joint capital-labour income in certain branches of ag-

⁵ In relation to the gross product in 1952, the growth until 1954 stood at only 4.6 per cent, since in 1953 there was a decrease of 2.3 per cent; consequently, the *per capita* gross product remained practically the same between 1952 and 1954.

Chart XXXVI
MEXICO: INCOME AND INVESTMENT

Thousand million pesos at 1950 prices
(Semi-logarithmic scale)



riculture—in total net income declined in real terms from 49 per cent in 1953 to 48 per cent in 1954.

The monetary devaluation provoked a rapid upturn in prices, the level of wholesale prices rising by 15 per cent during the period March to December 1954. The trend at the end of the year—including that of the rates for public and private services—was still a rising one and immediate prospects indicated that fresh adjustments would have to be made in accordance with the new exchange rate. Despite the measures taken by the Government to curb the rising cost of living, it may be assumed that the functional distribution of income, characteristic of Mexico during recent years, cannot be modified over the short term and without far-reaching institutional changes. Apart from its retrogressive influence on consumer demand, income distribution also has repercussions on the incentives to private investment, the market for which is dependent upon consumer demand.

II. BRANCHES OF PRODUCTION

1. *Agriculture*

The quantum of agricultural production—valued at 1948 prices—increased by 17 per cent during 1954. This is the highest increment recorded since 1941, when, after the

drought in 1940, production showed a still greater rise. In 1954, therefore, agriculture was the most dynamic sector of the Mexican economy and its growth represented 54.5 per cent of the increase in Mexico's total gross product, expressed in real terms. Various factors contributed to this expansion. The weather was particularly favourable for the production of basic foodstuffs and cotton, while heavy rainfall enabled larger harvests to be obtained in temperate areas and ensured a better water supply in irrigated zones. In addition, the total irrigated area was extended by 10 per cent because Government investments over a number of years began to enter into full operation. The year 1954 also saw a wider application of official agricultural improvement programmes, both technical and administrative, including agricultural credit policies, guarantee prices and the encouragement of the use of fertilizers.

The quantum of the production of foodstuffs as such⁶ expanded by about 13.4 per cent in 1954, in contrast to an average annual increment of 2.7 per cent between 1948 and 1953. Maize increased by 810,000 tons, wheat by 158,900, cotton-seed by 143,600 and sugar by 51,100 while for beans the rise registered 50,800 tons. The rice crop, although 10,700 tons more than in 1953, was smaller than in the years 1949-51. Bananas showed an increase of 5.8 per cent but for sesame the increment was scarcely 1.1 per cent.

As a result of these increases, the *per capita* supply of foodstuffs was higher in 1954 than in the previous five years, especially as regards maize, for which the *per capita* availability was estimated at 174 kilogrammes, as against 151 during the five-year period 1949-53 (a rise of 15 per cent). That of beans stood at 21 kilogrammes, compared with an average of 18 (an increase of 17 per cent). A simultaneous reduction of wheat, maize and beans imports was also possible. The volume of food imports fell in 1954 by 40 per cent in relation to 1953.

These excellent harvests also allowed reserve stocks to be accumulated. In the case of maize, the operational stocks held by CEIMSA, the official body responsible for regulating supplies, were estimated in March 1955 at about 165,000 tons, or 3.4 per cent of the 1954 harvest. There was also a sugar surplus, despite exports of over 70,000 tons in 1954. The export tonnage of sugar could certainly be increased, provided that a market were available, in view of the expansion of the cultivated areas and of the installed capacity of the refineries.

The export volume of agricultural products rose by only 2 per cent in relation to 1953, and did not fully reflect the higher production, because part of one year's harvest is always exported in the following year.

Among the export products, cotton showed the most rapid expansion. Production, which had already increased considerably in recent years, rose by a further 39.9 per cent in comparison with 1953, although the area harvested was only 60,000 hectares more, or 6.5 per cent larger. The successful campaign against pests, abundant rainfall and increased irrigation in the Yaqui and Matamores districts all contributed towards raising the yield to as much as 470 kilogrammes per hectare, in contrast to a previous peak of 378, achieved in 1949. Given conditions on the world market, at the end of the year it was not anticipated

⁶ Including cereals, tubers, pulses, edible oil-seeds and fruits, sugar-cane and fruit.

that major difficulties would occur in placing the large exportable surplus resulting from seasonal causes.

Coffee production, which had been affected by untimely rains, was 5 per cent lower than in 1953; this was reflected in curtailed exports. But the 83,000 tons obtained in 1954 are a measure of the success of investment carried out in recent years, mainly in the State of Veracruz which has caused output to rise above the 53,200 tons harvested in 1948.

The 1954 tomato harvest showed a decline of 5 per cent in relation to 1953. The main reason was the policy followed by the producers in Sinaloa, the chief area of cultivation. They replaced tomatoes by wheat and beans during the 1953 winter season, despite the favourable foreign prices for the former crop, because of official incentives to the other two products (credits, subsidies, guarantee prices, etc.).

Sisal, although it recovered by 10 per cent from the low levels registered in 1953, tended to remain stationary at about 100,000 tons. Contributory factors were the difficulty of selling this product in an already saturated market, the paucity of technical improvements in its cultivation and the special conditions governing crop management in this case. Fibre exports fell from 31,000 tons in 1953 to 26,000 in 1954, but shipments of articles manufactured from sisal—44,000 tons—were the largest achieved to date.

Emphasis should be laid upon the governmental irrigation programme and its cumulative effect on Mexican agricultural production over the years. In 1954, about 140,000 hectares were added to the agricultural areas possessing a guaranteed water supply while irrigation arrangements for a further 64,000 hectares were improved. In addition, water reserves in the principal systems were expanded by 23 per cent above the 1953 figures, which made it possible to give greater attention to winter crops and to extend the area under seed.

In 1954, the Government spent 601 million pesos on irrigation works, a sum which represented 78 per cent of public expenditure on agriculture, forestry and livestock development. With the money thus invested, work was continued on numerous projects and 307 large and small irrigation schemes were completed. In the former class should be mentioned the international conduit at Falcón and the Canal Alto, as well as the drainage system of the Yaqui valley. The result was an increase in the total irrigated area of about 2 million hectares. Out of the 1954 increment of 204,000 hectares, 183,000 consist of areas served by large-scale irrigation and 21,000 of land benefiting by smaller schemes, especially wells for pumped irrigation. The crop grown on the greater part of the new land incorporated in the system was cotton; next in importance came wheat and tomatoes.

The earlier policy of carrying out large-scale irrigation works almost exclusively in semi-desert areas is now being supplemented by works in sparsely populated tropical areas, such as the valleys on the Gulf of Mexico; however, the large investments in these areas cannot yield results until other related programmes, dealing with public health, communications, settlements and credit are completed. In other parts of the country the intensive programme of tapping the water supplies by means of wells has continued; it has been mainly concentrated in the North and South-East, with immediately encouraging effects on the staple crops.

In 1954, the consumption of fertilizers recorded a fresh increase assessed at 100,000 tons, thus reaching an estimated total of between 250 and 290 thousand tons. Not only was there a natural increase in demand, but Government action in the shape of information campaigns and credits for the purchase of fertilizers, granted through State-controlled banks, tended to raise it still further.⁷

No data exist which can throw any light on the part played by improved agricultural techniques in the substantial growth of production. In imports of machinery the downward movement originated in 1951 continued. Tractors purchased from the United States in 1954 were only 50 per cent of the number bought in 1950 and 41 per cent of purchases in 1951, when the peak level of imports was recorded. The inventory of tractors in 1954 represented 54,000 units with an estimated potential of 1.8 million HP,⁸ a figure which was double that of 1948, and 40 per cent higher than in 1950, thus pointing to a high degree of mechanization.

2. Manufacturing industry

Mexican manufacturing industry, which was heavily depressed in 1953, exceeded previous production levels in 1954 by an estimated 6.5 per cent. In that group of industries where production does not cover the entire domestic demand and competes with imported goods—steel ingot, rolled products, caustic soda, pulp—a substantial market expansion was achieved and production rose by rates varying between 12 and 23 per cent in relation to the previous year. On the other hand, the volume produced by those industries which cover the whole national demand—cotton textiles, tyres, paper, beer, soap, oils, canned foods and cement—followed a variable course and was mainly influenced by cost and price movements in 1954, as well as by export possibilities. In general, the production of these goods was between 6 and 13 per cent greater than in 1954, but in some cases it was lower than the 1950-51 level, which implies that *per capita* consumption is declining.

The output of iron and steel increased in 1954 to 582,000 tons of steel and about 500,000 of rolled products. A large-scale investment plan was continued, with the object of satisfying by 1955-56 the greater part of a total demand for steel products originally estimated at between 900 and 950 thousand tons. In the consumption of steel and rolled products there was no increase, and imports fell by 95,000 tons. Pig-iron production remained almost stationary at a level of 252,000 tons, and full use is still not being made of blast-furnace capacity, which, with the installation in 1954 of a fourth unit of 800 tons, now stands at 735,000 tons per year. If in future the same low proportion of pig-iron and high proportion of scrap is employed per ton of steel ingot, the capacity of the existing blast furnaces, utilized up to 80 per cent of their maximum efficiency, will suffice to cover the entire market demand until 1964 inclusive.

With the installation of two electric furnaces and a considerable extension of the Siemens-Martin process, steel-making capacity reached 916,000 tons per year, a figure

⁷ On the national output of fertilizers, see the section on manufacturing industry, p. 168.

⁸ These estimates are based on an average useful life of eleven years and on the HP indications given in United States foreign trade statistics.

which is considered sufficient to cover, for many years, that part of the market which can be economically satisfied from domestic production. Rolling-mill capacity was increased by 50,000 tons upon the inauguration in 1954 of a plant manufacturing seamless steel tubes, in the neighbourhood of the port of Veracruz. This plant began operations by using imported ingot of a special type not yet manufactured in Mexico, and will produce tubes of various kinds, including oil pipelines; it will be able to cover 30 per cent of the country's total tubeconsumption, which is estimated at 150,000 tons annually. The enterprise is proposing to instal a second 50,000-ton unit, to produce large-diameter tubing and satisfy a higher proportion of total consumption.

Other plans include the installation in Monterrey of a semi-continuous strip mill, of 120,000 tons' annual capacity,⁹ which will enter production in mid-1955, and the construction at Monclova, Coahuila, of a rolling-mill with an annual capacity of 56,000 tons and of an electrolytic tin-plate plant which will raise the yearly output of tin-plate from 30 to 70 thousand tons. This will enable the entire estimated consumption for 1956 to be satisfied, 80 per cent of capacity being utilized.

The production of rolled steel clearly illustrates the effects of import restrictions and devaluation on the market and on the consumption level of certain industries which were able to carry out an active import substitution policy. In 1954 the output of rolled products, according to provisional figures, rose by 72,000 tons, or 16.6 per cent as compared with the 1953 level, but the reduction in imports was reflected in a major falling-off in consumption. Furthermore, after imports of rolled products had been reduced by some 250,000 tons in 1951-54, the margin for import substitution tended to become rapidly smaller. It may therefore be predicted that in a few more years the growth of the iron and steel industry will necessarily be based almost entirely on parallel enlargements of the domestic market, and not—as in the past decade—both on such enlargements and on an increasing share in that market. Unless there are substantial changes in the rate of economic growth, this circumstance will tend to act as a brake on the development of the steel industry.

The cement industry underwent an appreciable contraction in the early months of 1954. Although a surplus capacity existed at the beginning of the year and would have been able to absorb a proportion of the cost increases per unit if the scale of production had been raised, the market then became smaller, owing to the rise in the value of land and of the other materials which make up building costs. Production later recovered, but over the entire year no higher growth than 5.5 per cent was registered. This, combined with a lesser rate of increase in consumption in 1952-53 and with a rapid expansion of existing installations, created a problem of under-utilization of capacity, which at present stands at 2.5 million tons.

Over the period 1952-54, average annual cement consumption amounted to 1.65 million tons; installed capacity already exceeds the demand by 800 thousand tons. It was not possible to restore the balance by means of exports, owing to cost factors, domestic transport and maritime freight charges. Moreover, although many of the projects envisaged at the beginning of 1953 for increasing the in-

⁹ The new plant will replace the out-of-date commercial mills which have an annual capacity of 55,000 tons.

dustry's capacity have been abandoned, work is continuing on the installation of two kilns with a total capacity of 150,000 tons, which—unless there is a substantial increase in the market—will aggravate the problem of under-utilization.

The chemical industry operated at high levels in 1954 to meet a growing market and increasing consumption. Sulphuric acid production increased by 7 per cent to a total of 111,000 tons, while that of caustic soda rose to 16,580 tons, or 23 per cent higher than in the previous year, after improvements to existing capacity had been effected. Imports of soda are still high (27,400 tons) and work is in progress to double the capacity of the principle producer plant and, over the longer term, to instal an electrolytic plant based on the sodium chloride process.

The joint production of ammonium sulphate and superphosphates, which is limited by the productive capacity of the enterprises, remained at approximately the same level as in 1953—148,000 tons—and imports of chemical and mineral fertilizers had to be doubled to satisfy the exceptional demand in 1954. It is estimated that the short-term domestic deficit of fertilizers is 160,000 tons. Meanwhile, to satisfy immediate necessities it is considered essential to double the present production capacity and to reach in the near future the target of 325,000 tons annually, which is calculated to be the country's normal consumption. An investment of 625 million pesos is planned for the installation of three fertilizer plants, two in the Gulf area and one possibly in the north. It is envisaged that these plants will use as raw materials gas from the Gulf oil-fields, sulphur from Central America and phosphoric rock from Florida for the manufacture of ammonia, ammonium nitrate, triple superphosphates, urea and other products.

The pulp and paper industry has attained a high degree of development, enabling it to become almost completely self-sufficient for paper and board and to an increasing extent for pulp. In 1954 the production of wood pulp increased by 18 per cent to a total of 59,121 tons and in addition pulp was obtained in commercial quantities from sugar-cane bagasse. The production of kraft, printing and writing paper, box-board and paper-board reached record figures of 106 thousand, 41,000 and 66,000 tons respectively. The process of expanding the industry was continued and it is expected that by early 1956 the new pulp-plant at present in construction in Chihuahua State will begin operations, with an approximate annual capacity of 25,000 tons of pulp for paper and 25,000 of alpha cellulose for the rayon industry. With the production of the Chihuahua plant and of two new plants using bagasse, it should be possible by 1956-57 to produce from 100,000 to 120,000 tons of pulp annually. This will suffice to cover almost the entire domestic consumption, estimated at 125,000 tons for 1956.

The synthetic fibres industry was stimulated in 1954 by a rapid liquidation of stocks, by the introduction of new lines of products and by a higher general consumption level. At the beginning of the year the majority of the stocks built up in 1952-53 had already been sold; they were totally exhausted shortly after the currency devaluation, in anticipation of rising prices. Since then the producer plants have been working at full capacity. Output of short fibres rose from 7,854 tons in 1953 to 10,540 in

1954, while production of filament increased by about 100 per cent, reaching a total of 4,230 tons.

Investment in this industry also reacted favourably in 1954 to the new market prospects, and certain projects of which the implementation was postponed in 1952-53 will be put into execution during the next two years and will increase production capacity by 3,200 tons of fibre annually. This will make it possible to satisfy the entire domestic demand for synthetic fibres, with the exception of pneumatic tyre cord, manufacture of which was begun in Mexico in 1954 by a plant which will cover about one-third of the tyre industry's demand.

The severe contraction of the consumer goods market, which had been affecting almost all industries since 1952, was partly overcome in 1954, although a disparity still persisted between the capacity to produce this type of commodity and the absorptive power of the market, owing to the downward movement of consumption, from 1950-51 onwards, in such industries as vegetable oils, footwear, canned foods and soap.

Among the consumer goods industries which developed favourably in 1954, cotton textiles were prominent. In 1953, this industry had faced a serious crisis, which obliged exceptionally large stocks of finished products to be accumulated, estimated at a total of 80 million metres and equivalent to 16 per cent of total output. Sales became brisk as a result of devaluation, partly because manufacturers did not immediately raise the price of cloth. The upward trend continued during the remainder of the year and, together with some revival of exports, enabled the industry to continue operating at levels appreciably higher than those reached in 1953.

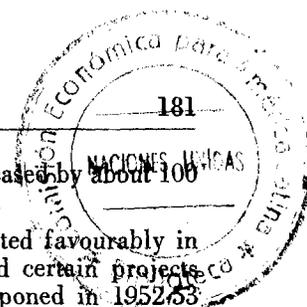
The pneumatic tyre industry, the demand for whose products had been falling since 1951 on account of the reduction in quotas for the assembly of cars and lorries,¹⁰ also received a stimulus in 1954, since tyre prices did not rise until well into May, before which date purchasers bought large stocks at the lower prices. The net result was a 12 per cent increase in production, compared with 1953.

A recovery was also experienced by other consumer goods industries, such as brewing (12 per cent), soap-making (7 per cent) and the manufacture of leather footwear (6 per cent).

3. Mining

At the beginning of 1954 uncertain world market prospects, coupled with the possibility that new taxes or limitations would be imposed on United States imports, had a discouraging effect on mining activities in Mexico. Production of lead and zinc, from January to March inclusive, was 10 per cent lower than the quarterly average for the previous year. But the slight recovery in the prices of these minerals from March onwards and the later assurance that there would be no change in the United States tariff, somewhat improved market prospects and caused a partial revival of mining activity. However, the long-term export outlook remained uncertain throughout the year. The complete lack of prospection for fresh reserves, to replace those already worked out, has for many years been leading to a progressive exhaustion of the mines, which in 1953 and 1954 was reflected in the closing of two important workings, one producing copper and the other lead and

¹⁰ These quotas fell from 48,000 units in 1951 to 30,000 in 1954.



zinc. This was also partly due to uncertainty about the behaviour of the international market and to the narrower margin between costs and prices.

As regards sulphur, on the other hand, thorough surveys were made, which resulted in the working of new deposits. In the Isthmus of Tehuantepec two private companies began sulphur production in 1954, using the Frasch process, in the salt domes of San Cristóbal and Jaltiplan, where reserves are estimated at 11 and 10 million tons respectively. By the end of the year, the San Cristóbal plant had attained a daily production level of 250 tons of sulphur of 99.6 per cent purity, and it is expected that in 1955 it will work at full capacity and produce some 200,000 tons annually. The Jaltiplan installation, with an annual capacity of 500,000 tons, began to produce on an industrial scale in October 1954. A third project, in the same area, is still in the prospecting stage. The capacity of these projects, together with that of the Poza Rica plant for the recovery of sulphur from gas, now in process of expansion, and the smaller-scale production from the mines of volcanic origin at San Luis Potosí and in Lower California, should, by 1956-57, bring the total output up to 1 million tons of sulphur annually, with a value of 28 million dollars at present prices. Consumption of sulphur in Mexico is still less than 100,000 tons per year, but is tending to increase rapidly.

According to official figures, copper production declined in 1954 to 54,800 tons, or 8.8 per cent less than in the previous year. Exports were reduced by 21 per cent, from 38,200 tons in 1953 to 30,300 in 1954.

The output of lead, which had fallen by 10 per cent in 1953 in relation to the preceding year, continued to drop during 1954, partly as a result of the uneconomic nature of certain smaller workings and of the closing-down of the large mine at Angangueo in the State of Michoacán. The Federal Government has taken steps to reopen this mine, but apparently it has not yet been possible to increase the output of ore sufficiently to make its permanent operation a sound economic proposition. During the year an output of 216,600 tons of lead was obtained, or 2.2 per cent less than in 1953. The volume of exports was maintained.

Zinc output fell by only 1.2 per cent, to 223,700 tons.

In the last four years some progress has been made in the installation of lead and zinc processing plants. From 1951-53 a group of plants was completed which increased the refining capacity by 1 thousand tons a day, in terms of ore. In 1954 a zinc and lead dressing plant began operating at Cosalá, Sinaloa, and a zinc refinery was opened at Avalos, Chihuahua, working on the basis of foundry slag. At Nuevo León, also, construction is proceeding on a plant for the processing of lead, zinc and copper, with a daily capacity of 100 tons.

4. Electric energy

From the second half of the year, the electric supply industry was faced with a considerably augmented demand for services. Active progress was made in the building of new power stations, a net total of 149 thousand kW being thus installed, which made it possible to cover the entire demand of the interconnected system in the centre of the country and to meet the needs of other regions, principally in the North and in Veracruz. With these addi-

tions the total estimated capacity reached 1.85 million kW, or 8 per cent more than in the previous year. The existence of greater reserves of water for the hydro-electric systems and the intensive use of available equipment enabled the generated power to be increased in 1954 by 10 per cent, as compared with an average annual rate of growth of 5 per cent in the period 1934-43 and 7 per cent in 1943-50.

A State undertaking, the Comisión Federal de Electricidad, has been carrying out a growing programme of investment in electric energy projects, accounting for 64 per cent of all the public service capacity installed between 1950 and 1954, and for 70 per cent in 1954 itself. The hydro plant at Ixtapantongo, which began operating in 1954, is a 45,000 kW installation, and, together with another of the same type built by a private company, added 90,600 kW to the interconnected system in the Centre. These additions to capacity, and others to be obtained in 1955-56, will produce an energy surplus estimated as sufficient to cover the needs of the central area until 1958 or 1960. When the programme is completed, the system serving the environs of the capital will have an available capacity of 850,000 kW, or as much as the public service capacity for the entire country in 1949. By then, however, full use will have been made of the nearest or most economical hydro potential, and installation of the necessary generator capacity to cover the area's future demand, which doubles every eight to ten years, will depend rather on thermal stations—such as the 66,000-kW extension of the steam plant at Lechería, now being studied—or on hydro-electric plants more remote from the consumption centres. Both these circumstances will tend to raise the future cost of energy.

In 1954, a shortage of energy still existed in some areas. In Monterrey, despite the installation of 27,000 kW in public and private plants, the scarcity was acute: in the Bajío area, where no major additions to equipment have been made for over ten years, it was necessary to ration consumption severely. The Chapala system increased its output by 10 per cent, but this was inadequate to meet the demand. To obtain sufficient dependable capacity, it is planned to instal 27,500 kW at a group of plants belonging to the same network, and plans have been made to build a 50,000 kW hydro-electric plant over the longer term, which will be interconnected with the rest of the system.

In order to meet future demand, in 1954, work was continued on the building of 11 plants with an over-all capacity of 423,000 kW, which are intended to enter production in 1955-57. In the Miguel Alemán system, 43,000 kW will be installed in 1955 and 135,000 in 1956-57. Two hydro plants are also under construction, one at El Cobano, of 52,000 kW, whose energy will be distributed by private enterprises, and one at Temascal, of 150,000 kW, which will supply the Puebla-Veracruz area. With these and other plants already under construction an approximate aggregate capacity of 2 million kW will be obtained in 1955, 2.15 millions in 1956 and 2.3 millions in 1957, in which year it should be possible to satisfy a consumption of 8.4 million kWh.

Broadly speaking, the main construction programmes are completed or nearly so. The rate of growth of the electric supply industry in the last four years has been 11 per cent, and this must be maintained if a gradual expansion of the area served is to be achieved. The programming of future electricity works must therefore continue. The fact that within two or three years the area covered by the inter-

connected systems in the centre of the country will have surplus capacity at its disposal creates a possibility of channelling the development of electric energy supplies towards the states in Northern Mexico, where the rate of electrification has been lower than the growth of economic activity, and the areas of Bajío and Jalisco. The surplus will also further the programme of rural electrification, which has so far been carried out only in sporadic form, and will enable interconnected systems of regional scope to be established, such as that now in process of construction in the States of Sonora and Sinaloa. The creation at the end of 1953 of a national organization to study the country's electricity problems necessarily entails methodical planning, of wider application than hitherto.

5. *Petroleum*

The petroleum industry in 1954 recorded a very rapid rate of growth, as a result both of the rise in domestic demand, which increased by 9.5 per cent despite substantially higher fuel prices, and of the recovery of the foreign market, where sales amounted to 23.3 million barrels, i.e., 27 per cent more than in the previous year. Because this expansion of the over-all market coincided with surplus productive capacity as from 1953, production of crude petroleum increased by 14.7 per cent and of derivatives by about 10 per cent. Total production reached 85 million barrels of crude and an estimated 75 million barrels of derivatives. At the end of the year the rate of extraction continued to accelerate and should make it possible, according to official estimates, to extract over 100 million barrels in 1955.

The greater part of the increased production came from new oilfields. One important field alone, discovered in 1952, accounted for 28 per cent of the total petroleum extraction, and altogether between 30 and 35 per cent was obtained from fields which began to be worked in 1952-54.

Petroleros Mexicanos is developing a plan for the renovation of refineries, pipelines and gas pipes which is designed to increase the total refining capacity, to extend the potential production of light derivatives—such as diesel and gas oil—and to expand the area supplied from domestic production as far as the North-East, which today largely relies on imports. Under this programme the lubricants

and paraffin plant at Salamanca, in the centre of the country, was completed in 1954 at a cost of 310 million pesos.

The new plant has a daily production capacity of 4,000 barrels of high-grade lubricating oils and will produce every type of oil consumed in the country in sufficient volume to cover domestic demand. As present production is about 1,500 barrels per day it is expected that there will be a daily surplus capacity of 2,500 barrels, which, together with the production of the older refineries, might rise to 3,000 barrels per day if a foreign market could be found. However, the new plant will begin production at a rate of only 2,500 barrels per day so as to eliminate imports of lubricants, which at present cost 15 million dollars per year, and to leave a surplus of 1 thousand barrels per day, which could be exported if a market were available. In addition, the distillation capacity of the Atzacapotzalco and Salamanca refineries was increased in 1954 by 20 thousand barrels, and it is planned to raise the output of Atzacapotzalco to a total of 80,000 barrels and to modernize the plants at Minatitlán, Cape Madero and Arbol Grande, on the Gulf of Mexico.

The existence of surplus productive capacity and the discovery of reserves in excess of market requirements led in 1954 to a lower rate of drilling than in 1953. A further contributory factor here was no doubt the rise in investment costs from April 1954 onwards, together with the stability of the domestic prices of petroleum products, which were not modified until October. The number of wells drilled in the course of the year amounted to 293, compared with 355 in 1953; despite this, the reserves of petroleum and natural gas increased to 2,609 million barrels, or 13.5 per cent more than in 1953.

The greater part of the drillings were made in the valleys of Veracruz and Tamaulipas, which are those with the best prospects at present, and in entirely new areas, such as Lower California, Nuevo León, Coahuila and Yucatán, where no petroleum deposits could be found. Nevertheless, sedimentary formations have been discovered in the Lower California area which are of a type suitable for the accumulation of hydro-carbons, and prospecting continues, for if a source of supply were discovered here, it would naturally be of great interest on account of its location in the North-Eastern area, which, as already mentioned, is customarily supplied from imports.

Chapter XII

PANAMA

I. GENERAL CONSIDERATIONS

In 1954, economic activity as a whole remained at the relatively high level of the preceding year, but there was an expansion of internal trade, agriculture, manufacturing and building. Foreign trade progressed more favourably than in 1953 as regards the terms of trade, although the quantum of exports declined. Greater commercial activity within the Republic was attributable to an increase in the purchase of goods and services by the Canal Zone as well as to the fact that more ships were in transit. This traffic contributes to the gross income of Panama through sales by local companies and the expenditure of passengers and crews.

The programmes for expanding and improving agricultural production advanced, so that an increase took place which was largely due to a rise in staple consumer crops. As a result there was a saving of foreign exchange, since it was possible for food imports to be greatly reduced.

Economic conditions in 1954 appear to have favoured the development of the young manufacturing industry. Cement output increased; new factories in other branches entered production or existing plants resumed operations. Private building activity also stood above the 1953 level, and, together with public works, appears to have contributed to the improvement in the investment coefficient.

The new treaty of co-operation signed with the United States, which in some respects substantially modified the previous agreement, was an important event during 1954. Among the changes introduced is the increase in the annuity received as rent for the Canal Zone. In addition, Panama will now have the right to collect income tax from Panamanian and other non-United States employees of the Zone who live in the Republic. The privileges entitling such personnel to make customs-exempt purchases in special Canal Zone commissaries will also be restricted. At the same time, negotiations will be conducted to extend the basic salary scale applicable to United States staff, as well as the United States civil service pension, to Panamanian employees.

The United States is to adopt certain administrative procedures so that Panama's economy may play a greater part in supplying the Zone. As from 31 December 1956, Canal Zone establishments will discontinue the supply of all commodities—except fuels and lubricants—to those ships which are not the property of the United States Government or are not operated in its service. Further, under certain conditions, the present manufacture and processing of specific consumer goods in the Zone will cease.

Apart from the greater fiscal resources which it represents, the new treaty will tend to expand the local market for domestic products and to foster the effective demand in Panama, through higher income and personal expenditure.

II. FOREIGN TRADE

Panama's foreign trade continued to advance in 1954, owing mainly to the stimulus of high export prices, which rose 9.4 per cent above the 1953 level. Import prices remained steady in relation to those of the preceding year, so that the terms of trade were 9.2 per cent more favourable. Conversely, the export volume declined by 13.6 per cent in relation to the record quantum in 1953, although it almost equalled that of 1952 and was much higher than in 1951. In consequence, the capacity of exports to pay for imports—although still at a very high level—was 5.7 per cent below that of the previous year.

The quantum of imports expanded by 4 per cent in relation to 1953, in contrast to the decline in exports. But an inflow of foreign exchange, originating from other assets in the balance of payments, covered the excess of imports over exports in 1954.

Imports of foodstuffs decreased in 1954, and, according to the scanty data available, it appears that there was a rise in those of durable consumer goods and raw materials.

III. BRANCHES OF PRODUCTION

1. *Agriculture*

Until very recently, Panama's agriculture could not adequately meet consumption in the larger cities. Consequently, foreign exchange had to be earmarked for imports of foodstuffs, mainly rice, coffee, tomato extracts, evaporated milk and meat. As from 1952, however, Government protection for agriculture, reinforced in 1953 and 1954 through the credit programmes of the Instituto de Fomento Económico, permitted agricultural enterprises to be created on a commercial basis and led to a large increase in the volume of production and a sizeable saving in foreign exchange through the reduction of foodstuffs imports.

The main programmes for agricultural development include investment credit and short-term loans to finance operating costs, the establishment of machinery pools, the building of silos for grain storage, the improvement of seeds and the fixing of guarantee prices for certain commodities.

With the aid of a 1.5 million dollar loan from the International Bank for Reconstruction and Development, the Instituto de Fomento Económico established agricultural machinery pools at Chitré, David, Santiago and Panama City, in the last of which silos for the storage of maize and beans were constructed. With the technical aid of the Inter-American Agricultural Co-operative Service in Panama (SICAF), about 160 tons of certified rice seed, with long-grain and of a high-yielding variety, were produced in 1954 for distribution among farmers.

Partly as a result of these measures, rice production—which in 1948 had stood at about 75,000 tons—rose to 111,000 in 1953 and to 100,000 in 1954. Imports of this

cereal, amounting to 6,000 tons annually, were entirely eliminated as from 1953 and the *per capita* supply rose from 114 kilogrammes in 1948-52 to about 126 kilogrammes in 1953 and 1954. The supply of fresh milk for processing increased from 2.3 million litres in 1950 to 4.5 millions in 1953 and to 5.1 millions in 1954, when imports of condensed and evaporated milk were no longer necessary. Although no data are available on tomato extracts, it was estimated that in 1954 such imports were small, since farmers provided the factories concerned with about 1,400 tons of fresh tomatoes—three times as great as the supply in 1953.

Coffee production expanded from 2,700 tons in 1948 to about 4,000 in 1954, so that imports were virtually eliminated. Although at a much higher level than in 1948, maize production declined from 77,000 tons in 1953 to about 72,000 in 1954, owing to damage caused by hurricanes. It was therefore necessary to import about 700 tons which were required particularly to supply factories producing concentrated poultry feed.

2. Manufacturing industry

Industrial activities in Panama in general comprise small workshops or factories using a very limited labour force and requiring low capital investment. They produce consumer goods, mainly beverages and foodstuffs. In recent years, however, new industrial concerns have been organized with the aim of achieving a more efficient utilization of the country's natural resources. Although on a modest scale, their establishment has tended to lessen the marked dependence of the economy upon imported manufactured goods. Among the measures adopted to further economic development, mention should be made of tax exemption, credit facilities, the raising of tariff barriers and even the restriction of imports. Partly as an outcome of these measures a modern cement plant was established as well as factories for the production of plywood and of vegetable oils. Other industrial projects are also under consideration.

According to information, which is however incomplete, the cement factory, with an annual capacity of 90,000 tons, was able to accelerate output in 1954, thanks to the greater demand for cement used in public works and private building, which must also have increased judging by the number of new permits granted. In the first six months of 1954, such permits represented an expenditure

of 1 million dollars more than that of the same period in 1953. Moreover, cement consumption expanded in 1953-54 because 13,600 tons were sold to the Canal Zone.

Almost the whole of Panama's high level of beer consumption is met by breweries situated in the two largest urban centres. The main company is building a new plant, so that production capacity will rise by about 30 million litres annually.

A plywood factory, which had been closed down from the end of 1953 to April 1954, resumed operations and by November had attained a production rate of 1 million board feet annually. Similarly, a vegetable oil factory which had suspended operations in June 1954 again entered production after customs duties on imported edible oils and fats had been raised during the course of the year. Activities were also resumed at a small factory producing toilet paper, paper towels and napkins, which had been established at the end of 1953 with a capital of 50,000 dollars, and, secondly, at a cigarette factory, representing an investment of 225,000 dollars, which uses domestic tobacco mixed with leaf tobacco imported from the United States.

Among the industrial projects, it should be noted that a powdered milk plant, at present being built, is expected to enter production in 1955. The Consejo Nacional de Economía is further studying various plans for the establishment of other small industries. The possibility of providing a sugarmill and a coconut-oil extracting factory for the province of Colón is likewise under examination.

3. Energy

The installed capacity for electric energy is concentrated in the two principal urban areas, Panama City and Colón, where 75 per cent of the output is in the hands of a public utility company. The remaining 25 per cent consists of plants with a very low generating capacity, mainly Government-owned, which provide power and light for urban areas in the interior.

According to official data, in 1952, there were 42 Government-owned and 8 municipal electric power stations, with an aggregate capacity of 2,345 kW, or an average of 47 kW per plant. Privately-owned power stations, which numbered 21, had a capacity of 28,185 kW; the total installed capacity of Panama was therefore 30,530 kW. In 1950-54, the energy output increased by 23.9 per cent, giving an average annual rate of 4.8 per cent.

Chapter XIII

PARAGUAY

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. General considerations

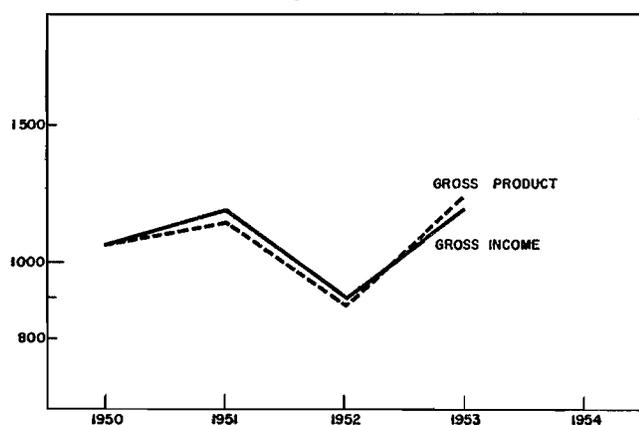
Paraguay's gross income increased slightly in 1954, according to available data which indicate a remarkable improvement in the terms of trade, a rise in crop production (in contrast with a small decline in livestock output) and a tendency towards stability in industrial production, although the latter is of little importance for the domestic economy. Available goods and services have also grown with the expansion of the quantum of imports.

The improved situation, however, which arose mainly from external or circumstantial factors—favourable world prices and satisfactory weather conditions in several areas—caused no decisive change in the relative stagnation which for several years has been a characteristic feature of Paraguay's economy.¹ The difficulties of various kinds which had previously been apparent still remained unsolved. Thus, the supply of essential commodities at controlled prices continued to be inadequate—evidence of which is the existence of a black market—while transport problems rendered this shortage even more acute in certain areas. Moreover, the quantum of exports fell below the already unsatisfactory level of 1953. If the inflation was more moderate, it was only as a consequence of the deflationary effect exerted by the balance of payments through a reduction in international reserves. In an effort to correct this disequilibrium, which appeared to become more pronounced during 1954, partly as a result of inflation, the guarani was again devalued in August 1954.

¹ No data are available for calculating the investment coefficient, but it is unlikely that there was any recovery from the very low level prevailing in previous years.

Chart XXXVII
PARAGUAY: GROSS PRODUCT AND
GROSS INCOME

Million guaranies at 1950 prices
(Semi-logarithmic scale)



2. The balance of payments and foreign trade

(a) The balance of payments

In 1954, Paraguay's capacity to import suffered a modest decline, while imports of goods and services increased by 12 per cent. Consequently, the balance of payments showed a 5-million-dollar deficit, and the foreign exchange holdings of the Bank of Paraguay fell by 6 million dollars;² the value of international reserves of the Central Bank was thus lower than the total required to cover quarterly imports.

The decline in the capacity to import was brought about by the decrease in the capital inflow, although the current value of exports rose by 5 per cent. In the immediately preceding years, most of the net capital inflow was caused by the repatriation of private Paraguayan funds in the form of imports "without use of foreign exchange". This capital inflow dropped³ from 5.0 to 3.6 million dollars between 1953 and 1954 and the contribution of foreign investors—particularly of a United States/Brazilian coffee-producing company working in the north-eastern area of the country—only partially offset this decline. In September the Export-Import Bank authorized a 7.2-million-dollar loan to provide a new water system for Asunción, but this credit has not yet been used.

In order to restore equilibrium in the foreign account, apart from devaluation of the guarani which will be analysed at a later stage, the Government of Paraguay decided on a new policy to encourage foreign investment. By an Act promulgated in February 1955, incentives for foreign capital were confirmed and enlarged. Such incentives include: the waiving of Customs duties on machinery and tool imports; certain tax exemptions and a 25 per cent reduction in income tax; authorization to remit dividends or capital repayments at an annual rate of 20 per cent of the investment; and exemption for a maximum period of five years from the legal obligation to employ a minimum proportion of Paraguayan employees. In addition, foreign companies working mainly with domestic raw materials of a type not previously used for industrial purposes are allowed to retain up to 50 per cent of the foreign exchange accruing from such activities.

(b) Foreign trade

Between 1953 and 1954, Paraguay's quantum of exports declined by 10.6 per cent, mainly because cotton, quebracho extract, cattle hides and tobacco exports decreased. These commodities account for 50 per cent of all exports and their decline was only partly offset by in-

² Only changes in the gross reserves of the Bank of Paraguay are included, no consideration being given to movements in the holdings of other banks.

³ At the end of 1954, new regulations were drawn up for imports without use of exchange.

creases in the sale of lumber, mate, meat, oil-seeds and essential oils.

During the last four years, Paraguay's export quantum has undergone reductions ranging from 17 to 29 per cent, in relation to 1950. The lower exports of lumber, quebracho extract, cattle hides and meat have been the main cause. Furthermore, owing to fluctuations in foreign demand and domestic production, exports of some of these commodities have varied sharply—at times by more than 50 per cent. The inflationary process, with its inevitable expansionist effect upon production costs, has undoubtedly constituted an over-all factor of substantial incidence upon the unfavourable evolution of exports.

In 1952, the Government had decreed monetary devaluation in an effort to maintain the competitive position of Paraguay's main exports on the world market. This measure was repeated in 1954. The devaluation of the basic selling rate of exchange amounted to 40 per cent. The system of subsidies for certain of the principal export commodities was extended, and the preferential rates for some—particularly cotton and cattle hides—were also raised. Judging by export data, these incentives do not seem to have exerted any great influence during those months of 1954 when they were applied.

In contrast with the decline in exports, the quantum of imports rose by 15 per cent in 1954. No information is available for even an approximate appraisal of their composition.

There is a basic difference between the evolution of the quantum of imports, which have risen almost continuously since 1950, and that of exports, which have declined sharply. An outstanding factor among those which have caused the upswing in foreign purchases is the shortage of certain commodities after several years of import restrictions. Furthermore, in 1954 importers tried to cover their requirements before the month of August, when the monetary devaluation took place. Yet again, domestic inflationary pressures also encouraged an expansion of imports.

One of the objectives of devaluation was precisely that of neutralizing the influence of the inflation. But it must be emphasized that the change in the par value did not apply to official imports, since they could still be received at the rate of 15 guaranies to the dollar; nor did the new rate of exchange have any great influence upon imports of non-essential goods. While the exchange rate applicable to indispensable imports rose by 40 per cent above the previous rate, that corresponding to imports classified as essential increased by 28.4 per cent and that for non-essential goods was raised by only 20 per cent.⁴ It is likely that the effect of these exchange modifications was not reflected in imports during the last quarter of 1954, given the lapse of time between the enforcement of this measure and the passage of the goods through customs.

Price trends on the world market were favourable for some basic export commodities such as cotton and meat, but unfavourable for others, such as hides, quebracho extract and oleaginous substances. Finally, the export price index—including a probable improvement in lumber prices as a result of a trade agreement with Argentina—appar-

ently rose by 17 per cent, thus fully offsetting the reduction in the quantum of exports.⁵

Conversely, the aggregate price index for imports seems to have declined by 3.4 per cent with respect to 1953. A decisive factor was the drop in the price for Argentine wheat, which fell from 126 to 81 dollars per ton between September 1953 and mid-1954.

3. *The monetary situation*

(a) *Source and evolution of the money supply*

In 1954, the money supply grew by only 24 per cent against the 62 per cent increment during 1953; but, despite this considerable slackening in the growth rate of the money supply, strong expansionist forces still existed. Another characteristic feature of the evolution of the money supply was that the volume of cash currency grew at a faster rate than bank deposits, partly because the public preferred cash payments in an effort to avoid the official control upon certain transactions.

One of the moderating factors in the growth of the money supply was the improvement in public finance—already noted in 1953—which resulted in a considerable reduction of the budgetary deficit and consequently, of the official demand for bank credit. But the decisive cause was undoubtedly the deflationary effect of external factors which at least partially offset the internal expansionist pressures in the private sector of the economy.

Moreover, these internal pressures were weaker than in 1953. In fact, credit restrictions were applied after November 1953 with the aim of reducing speculative or luxury investment, so that bank loans to the private sector in 1954 grew only in terms of the additional money requirements originating in the imperfectly controlled expansion of the price-wage spiral. These requirements were not always fully covered, so that at times a shortage of money existed; this is not surprising, since the money supply had risen at an exceptional rate during previous years.

Nevertheless, the secondary effects of the monetary and exchange reforms of August 1954 had not been fully felt by the end of the year. On the one hand, the rise in official export subsidies caused an expansion of government expenditure; on the other, new prospects of expansion are to be found in the decision of the Central Bank to authorize medium-term bank credit, so that industry and agriculture can meet the higher cost of their purchases abroad arising from the readjustment in the exchange rates.

(b) *The money supply, prices, the cost of living and wages*

No accurate appraisal of the real evolution of the cost of living in Paraguay during 1954 can be made, because data on black market prices are not available and the full significance of this market is difficult to estimate. According to the official index, however, the slackening of the increment in the money supply was accompanied by a moderation of the rise in the cost of living; the devaluation of the guarani appears to have exerted little influence in 1954. It is also probable that—as occurred previously—the cost of living rose at a slower rate than the money sup-

⁴ For imports in the fourth category (luxury goods), however, an exchange auction premium of 40 to 65 per cent must be added to the official rate.

⁵ All the foreign trade figures given in this chapter are subject to further revision. The fact that customs data on the quantum must be related to inflow and outflow figures as given by the Central Bank can cause fairly large differences, since the date of payments and receipts does not coincide with that of the shipment or delivery of goods.

ply because: (i) available goods and services expanded; (ii) the foreign exchange price of certain imports dropped; and, (iii) a policy of price control and rationing of essential commodities was pursued by the authorities.

In 1954 several apparently successful changes were introduced in this policy. Firstly, the scope of the restrictions was limited in order to foster production and discourage illegal transactions. But, secondly, stricter controls were applied to the trade in certain commodities, the prices for which the government will henceforth establish periodically, either directly, in the case of domestic products, or indirectly for imports by setting up a maximum profit for real costs.

In contrast with price trends, wage adjustments appear to have been granted with considerable liberality; according to incomplete data, nominal wages are estimated to have risen by 45 per cent. To the extent that the wage-earning sector did not use the black market, the increase represented a considerable, although perhaps transitory, improvement in real wages. It also caused a reduction in the profits of entrepreneurs, particularly since, as already noted, severe restrictions were applied to some prices and to bank credit for enterprises.

II. BRANCHES OF PRODUCTION

1. Agriculture

(a) Production trends

For a number of years Paraguay's agriculture has been undergoing an acute crisis, which has resulted in serious supply difficulties for the domestic market and in lower export availabilities. According to the incomplete statistical data, a slight improvement took place in 1953/54 since crops—particularly those grown for domestic consumption—reached the peak level for the last five years and increased about 3.5 per cent in relation to 1952/53. Although livestock production declined between 1953 and 1954, it still stood above the average level for the last five years.

Weather conditions were generally favourable, despite some floods and frosts. There was no incidence of pests or diseases worthy of mention.

Most crops showed improved harvests in relation to the previous year, although a few declined and the production of maize, beans and manioc remained stationary.

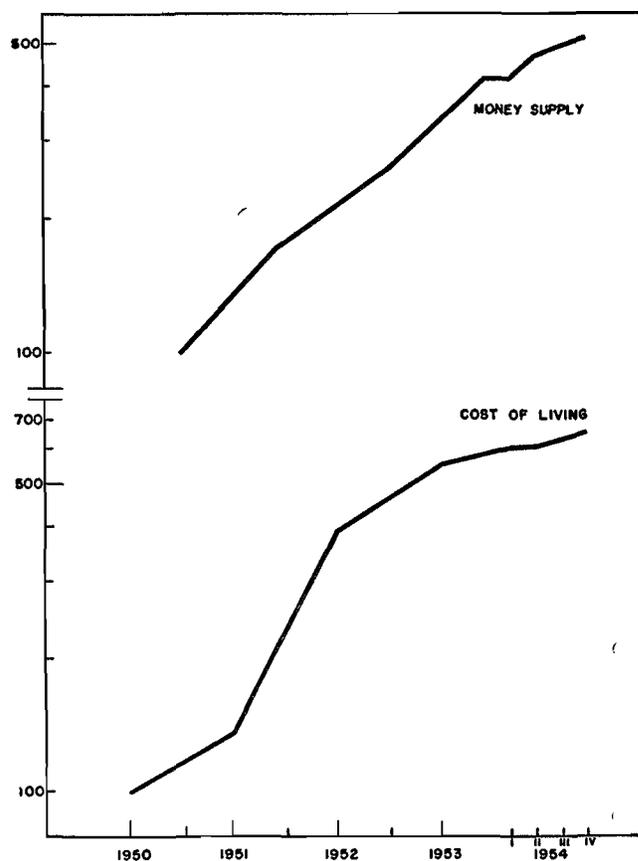
Cereal harvests were 6 per cent larger than in 1952/53. Rice production reached a record level of 20 thousand tons. That of wheat, which had risen steadily since 1951, stood at only 1,900 tons, in comparison with the peak crop of 2,200 tons harvested in 1948/49.

Aggregate production of edible oleaginous substances was insufficient for consumer requirements. The cottonseed crop was 26,700 tons, or 13 per cent greater than in 1952/53, but it was still lower than the harvests of the two previous crop years. Peanut production—only 8,200 tons—dropped to the lowest level during the last five years.

Despite frost damage to sugar-cane plantations, the production of 16,300 tons was 20 per cent larger than the tonnage refined in 1953, but did not attain the levels of previous years. Favourable forecasts were made for the fruit destined for export, but, although the volume was fairly satisfactory, the estimated exportable surpluses were not obtained.

Chart XXXVIII
PARAGUAY: INDICES OF THE MONEY
SUPPLY AND COST OF LIVING

1950=100
(Semi-logarithmic scale)



The cotton crop amounted to 14,000 tons, or 700 tons more than in 1953, when production had fallen to the lowest point for the last five years. Bad weather was the main cause of the decline in tobacco production.

If the livestock industry is judged by beef production, 1954 appears to have been a good year. Floods, however, raised the death rate and slaughtering seems to have declined some 4 per cent below the very high level of the preceding year.

(b) Development measures

The shortage of essential commodities on the domestic market and the need to raise production for export have led the Government to adopt a number of development measures during recent years. In 1953/54 previous programmes with regard to agricultural credit, seed supplies, disinfectants, tools, etc., were maintained, but special emphasis was laid on the development of wheat, rice and coffee production. It was not possible, however, to extend supervised credit for the purpose of settling small holders on their own land, because the small rate of return on such loans has created serious financing problems.

The wheat development policy aims at self-sufficiency, since production deficits are a considerable drain on the foreign exchange budget. A specialized bureau has been

created—the Servicio del Trigo—which is responsible for all aspects of wheat research and the expansion of its production. At present some varieties are available which have been acclimatized to the habitat, give satisfactory yields and are rust-resistant.

As a result of rice development plans, which include guarantees and the supply of improved seeds, domestic requirements have been fully covered and it is hoped to obtain an exportable surplus. Credit facilities have allowed progress to take place in mechanization, estimates indicating that in 1953/54 not less than 50 per cent of the area under rice was cultivated with the aid of machinery. Nevertheless, in 1954, imports of machinery financed by a 5 million-dollar loan from the International Bank for Reconstruction and Development did not reach the expected level because a proportion of these funds was used for the purchase of public works equipment.

In order to encourage coffee plantations in the area bordering on Brazil, the Government established the Estatuto del Café which provides various incentives for individuals and enterprises undertaking coffee planting in the areas which have been declared suitable. For similar ecological reasons, the Government is considering the transfer of the sugar-cane plantations from their present location to more northerly zones, where there are no frosts and the soil is more fertile.

In addition to these measures, a very important innovation in the field of agricultural development during 1954 was the minimum production plan for 1955 prepared by the Government with the help of FAO and the Technical Assistance Administration. On the basis of a better utilization of available resources, this plan aims at raising production over the short term to a level where requirements of essential consumer commodities can be fully satisfied, and at obtaining exportable surpluses to ensure a foreign exchange income of similar proportions to that estimated for 1954.

Finally, it should be noted that the work of the Instituto de Reforma Agraria is progressing slowly. During the last two years it has granted provisional or final deeds of ownership for a total of 120 thousand hectares of farm land and 750 thousand hectares of grazing land.

2. Industry and energy

During 1954, there were few developments in Paraguay's industry, which must be considered as only in the first stage of its evolution.

The most important branch, in terms of the value of production and labour employed, was still the processing of certain plant products, particularly edible and industrial oils and fats, tanning agents, and essences. In 1953 production of quebracho extract—which is mainly for the export market—reached 31,500 tons, and that of oils, fats and other by-products obtained from coconuts, castorbeans, palm nuts, tung, peanuts, etc. stood at 54,000 tons. Although data are unavailable for 1954, there is no indication that production has declined.

The textile industry—particularly cotton fabrics—is also of some importance. According to production and export data, the output of the cotton textile industry remained at the same level as in 1953 when 2,500 tons of woven goods were manufactured.

The cement factory at Vallemi produced 6,820 tons during 1954, which, although far below the level of installed capacity (30,000 tons annually) does show that operations were on a more regular basis than in previous years. In September, 800 tons of cement manufactured in Paraguay were exported to Brazil, as no domestic market could be found. This situation arose because large stocks of foreign Portland cement were available, authorization for such imports having been given when the output of the Vallemi plant was insufficient for domestic cement requirements. This suggests that in the near future the need for imports may perhaps disappear and that exports will be maintained, since average domestic consumption during the last five years has not exceeded 10,000 tons.

Generating capacity for electric power stood at 47,000 kW, of which public services accounted for 34,400 and industrial facilities for the remainder. In Asunción, an 11 per cent increase in relation to 1953 took place, the capital representing 86 per cent of the aggregate energy generated in Paraguay. A 10,000 kW turbo-generator is expected to arrive in 1955 for the Asunción plant, which, together with other units, will supply present and future requirements for the next few years.

Chapter XIV.

PERU

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

1. *Gross income and investment*

Among the unfavourable circumstances confronting the Peruvian Government at the close of 1953 and early in 1954 were the following: foreign exchange difficulties resulting in a sharp depreciation of the rates for the sol; losses of international reserves; a comparatively heavy deficit in public finances; the fall in world market prices for certain strategic materials which represent major items in Peru's export trade; and the threat of an inflation which had previously been contained within reasonable bounds. The information available at the end of 1954, while suggesting that the equilibrium has been restored and could probably be maintained in the immediate future, also indicated a lower over-all level of activity, which is reflected in the figures for national income and investment.

During the period 1950-52, the gross product had shown a substantial rise (18.3 per cent) and gross income, which had expanded somewhat more, thanks to a small improvement in the terms of trade, stood at 13.8 per cent on the basis of *per capita* income. In 1953, there was a decline of 2.5 per cent in gross income, which represented a fall of 4.4 per cent in *per capita* income. During 1954, the downward movement in income was arrested, but the recovery was so slight (1.3 per cent) that the figures were still below those for 1952 and in any case represented a new drop of 1.5 per cent in *per capita* income. The terms of trade showed a minor improvement, but were still very negative in comparison with 1950.

Investments, for their part, showed a marked upward movement until 1953, and actually came to constitute 22.5 per cent of gross income, one of the highest coefficients in Latin America. But in 1954 this coefficient dropped to 16.3 per cent.

All these developments represent a relatively abrupt change of trend, or at least an interruption in the expansionist tendency which had grown rapidly in 1951/52 but had begun to slacken in 1953. A study of the figures for the gross product, by sectors, reveals that the levels reached by agriculture and mining in 1954 may be considered as satisfactory and that the slight recovery in that year arose exclusively from their influence. Industry remained stationary, while other activities showed a minor decline. It is also interesting to note that during the last five years the rate of growth has been irregular in almost all branches of production. In mining, however, there was no fluctuation, but a steady improvement took place, despite unfavourable conditions in the market and world prices.

The changes during 1954 were brought about by both internal and external factors, connected not only with the difficulties mentioned above, but also with the measures adopted to overcome them.

First among the latter was the anti-inflationary policy of the Government, which found expression in the reduced public expenditure and the balancing of the budget, in the

more moderate expansion of bank credit, and, broadly speaking, in a slower growth of the money supply. Public investment was consequently on a smaller scale and imports were affected by the two-fold action of credit restrictions and of quantitative measures to curtail them.

But the fall in private investment was too sharp to be explained solely by the motives described above. In recent years a powerful dynamic influence has been exerted upon the Peruvian economy by an additional external factor, namely, foreign investment. In 1954 the inflow of foreign capital fell substantially and represented by far the lowest level during the last four years.

2. *The balance of payments and foreign trade*

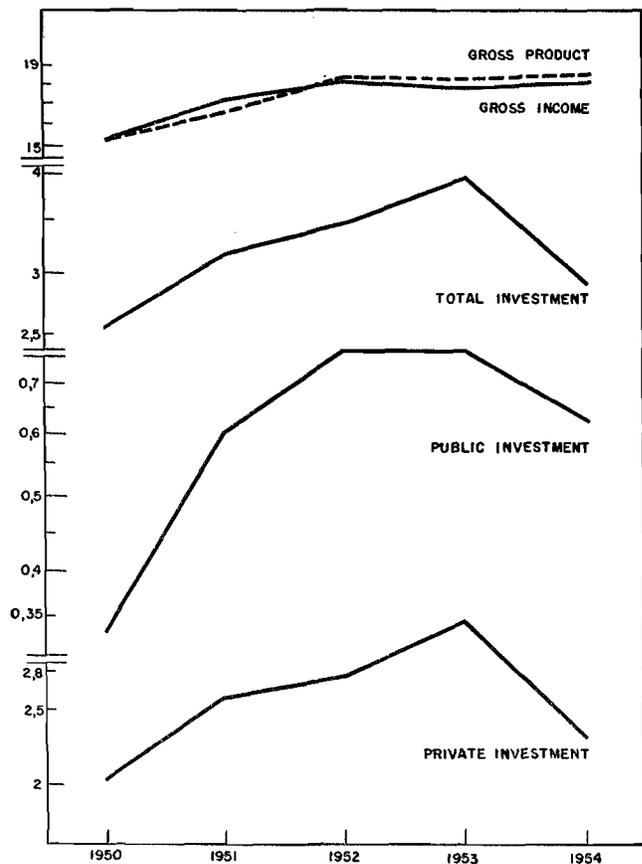
(a) *Balance of payments*

The outstanding features of the balance of payments in 1954 were the surplus that the figures for the whole year, which are not yet available, will probably show, and the decline in the inflow of foreign capital, in the capacity to import and in imports.

In June, after unfavourable balances had been registered

Chart XXXIX
PERU: INCOME AND INVESTMENT

Thousand million soles at 1950 prices
(Semi-logarithmic scale)



for several successive months, there was a surplus in the balance of trade, and the cumulative deficit for the first half of the year decreased to only 17.8 million dollars, as against 51.5 millions during the same period in 1953. This was the result of a rise in the value of exports, but still more of a reduction in imports, and it is estimated that the year closed with a small favourable balance.

During the three preceding years, the balance of trade had been unfavourable, but an annual inflow of long-term foreign capital, which had amounted to 137 million dollars, enabled the difference to be covered and the servicing of foreign debts, amortization and remittances of profits and interest to be met, only a small deficit remaining in the balance of payments.

In May, as a result of the deficit in the early months of the year, international reserves dropped to their lowest level since the war in Korea. They later recovered and approached the levels prevailing in January. The greatest losses—as well as the strongest recovery—were registered in dollar holdings deposited in United States banks, despite the fact that the balance with that country had improved. This situation was influenced by the decrease in the capital inflow which came mainly from this source. It should be recalled that remittances of profits and interests remained high and will certainly rise further as private investments mature and as the servicing of the outstanding dollar debt and the renewal of payments on sterling indebtedness fall due.

The maintenance of a high capacity to import was thus dependent upon the inflow of foreign capital. The slackening of the inflow suggests, as an alternative, the need for a substantial increase in exports which would contribute to the maintenance of a high investment rate, but of which there is no immediate prospect. The rise in the quantum of exports during the period 1952-54 did not always offset the fall in the prices of the products shipped abroad. However, the future outlook for a renewal of the foreign capital inflow appears to be encouraging. For the moment, European capital is available for the hydro-electric project in the Santa Valley and for the iron and steel industry at Chimbote, while new investments from the United States are being made in copper mining.

(b) Foreign trade

Despite the bad market conditions for sugar and cotton in 1954, the over-all quantum of exports from Peru exceeded the 1953 figure by 7.2 per cent and represented a peak for the last five years. The smaller volume of cotton shipments was fully offset by the higher exports of copper, lead, zinc, silver, petroleum, some agricultural products such as wool, hides and leather, and other commodities of secondary importance.

The characteristics of the import trade differed from the previous year's. During 1953, in contrast to the over-all regional trend, Peru registered an increase in imports rather than a decline, owing to free exchange facilities, to liberal credit granted by suppliers, to monetary expansion and to foreign investments which influenced capital goods imports. In 1954, on the other hand, this trend was curbed by the rise in the exchange rate and by the import restrictions, which together caused a drop of 17 per cent in the quantum of imports. Nevertheless, the factor mainly responsible for the decrease was the lower machinery and equipment imports of foreign enterprises.

In 1954, the total price index for exports rose by 4 per cent in relation to 1953. The slight improvement in

the price of cotton, Peru's largest export, offset the lower prices for sugar and wool. Copper, zinc, lead and petroleum also showed small price increases.

The higher prices and the greater volume exported justify the statement that Peru was successful in overcoming the market and price difficulties which other countries have faced with less satisfactory results. The depreciation of the sol enabled those Peruvian products which suffered the heaviest fall in prices to continue to compete on world markets.

As import prices showed a slight rise—rather more than 1 per cent—the terms of trade showed a definite improvement of 1.5 per cent in relation to 1953.

The composition of exports underwent no appreciable change in 1954. The few variations which took place were both minor and transitory, and arose from fluctuations in harvests and mining output. Nevertheless, attention should be drawn to the growing importance of the iron ore exports, which between 1953 and 1954 increased by more than 111 per cent and have come to represent 5 per cent of the aggregate value of all exports.

The changes in the composition of imports are also negligible; but it is interesting to note the ever-smaller share of consumer goods in aggregate imports and the steady increase in that of capital goods and raw materials. The sharp falling-off in imports of capital goods during 1954 made very little difference to the composition, since there was a much greater relative decline in purchases of consumer goods. Imports of fuel showed both an absolute and a relative increase, while those of raw materials were also relatively higher. A process of import substitution is thus revealed in a country where only limited quantitative restrictions on imports are in force and where protection, based on *ad valorem* duties, is not pronounced.

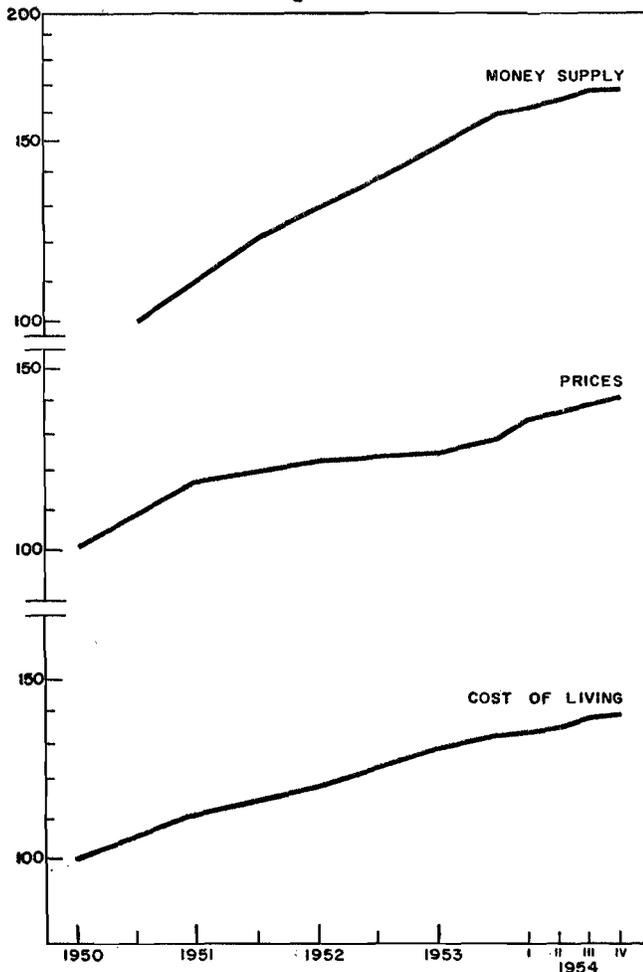
As regards the direction of trade, the general decrease in imports mainly affected the United States, with which country Peru managed to reduce its deficit substantially (from 70 million dollars to 37.5 millions). Moreover, the deficit was offset by favourable balances obtained with Japan and with the rest of Latin America (11.4 and 19.4 million dollars respectively). Nevertheless, exports to the rest of the region dropped sharply, at the same time as imports from Latin America rose, so that the surplus traditionally achieved by Peru in such trade fell by 13 million dollars, or by approximately 40 per cent. Trade increased with the Western European countries and a deficit of 17.6 million dollars was replaced by a surplus of 4.3 millions.¹ Broadly speaking, a wider range of markets was available for Peru's world trade.

3. The monetary situation

The desire of the authorities to remedy foreign exchange problems, to prevent the development of inflation and to arrest the depreciation of the rates for the sol, was conditioned by their determination to maintain the free exchange system. The corrective measures did not take immediate effect, and no important variations took place during the first half of 1954, except as regards the rate of exchange, which improved rapidly under the mainly psychological influence of a stabilization fund set up with a foreign loan. Moreover, the devaluation tended to correct itself automatically by its effects on exports and im-

¹ All these figures refer to eleven months of 1953 and 1954.

Chart XL
PERU: INDICES OF THE MONEY SUPPLY,
WHOLESALE PRICES AND COST OF LIVING
1950=100
(Semi-logarithmic scale)



ports. The restrictive credit policy principally influenced the private sector in the first half of the year, when loans to the Government had to be increased to compensate for the previous year's deficit and the inadequacy of public revenue.

At all events, during the second half of the year greater equilibrium was achieved and even the public sector ceased to act as an inflationary influence.

The rate of increase of the money supply was less rapid in 1954 than in 1953. Although there was some abatement of the restrictive influence exercised by external factors through the reduction of international reserves, the expansive force of internal factors weakened at mid-year. This was because of the moderation with which bank loans were increased, most apparent in development bank operations and in the credit granted to commerce and imports. The pressure of the demand for goods, especially for imported articles, thus relaxed.

As noted earlier, public finance ceased to exercise an inflationary influence after the first six months of the year. The loans obtained from the Central Bank to finance the purchase of the harvests were reimbursed, and it was also possible to repay a small proportion of the debt contracted with private banks to cover both obligations outstanding

from the previous fiscal year and deficiencies in the tax system. These repayments could be made, owing to the seasonal increment in income and to the implementation of the austerity programme planned earlier, which reduced real expenditure.

The cost-of-living index, having closely followed the money supply during 1953, lagged behind in 1954. The explanation lies in the rise—although this was moderate—in the prices of essential consumer goods, the freezing of rents and the stationary earnings of the lower-income groups. Although up-to-date and complete statistics on wages are not available, it is known that no general increases were officially sanctioned and that readjustments made by private industry were not commensurate with the higher cost of living. It may be concluded, therefore, that real wages declined.

In contrast, wholesale prices which had remained comparatively steady in 1953, increased slightly more than the growth of the money supply, owing to the more marked influence exercised here by the high rate of exchange and the appreciable drop in imports of producer goods and luxury articles.

The free exchange system was obliged to face not only unfavourable external circumstances, but also a strong current of opinion which opposed its maintenance on the grounds of the economic and social objections to the drop in the sol value, of the vulnerability of the national economy to fluctuations abroad and of the marked tendency of the higher-income brackets to consume or to make investments of little social productivity. But the Government was aiming at encouraging foreign investment and exports, and was also convinced that the root of the external imbalance lay in inflationary pressures. Steps were therefore taken to moderate such pressure, to correct certain abuses countenanced by the free régime—such as speculation and the monopolizing of foreign exchange—and to regularize the supply of and demand for foreign exchange. This modified monetary and fiscal policy began in 1953 with such measures as the reduction of the term of foreign exchange certificates, the prohibition or limitation of certain imports, the raising of the legal cash reserve for banks and so on.² Despite these measures, the free exchange system was virtually unaffected.

The new policy made itself felt from mid-1954, and even months earlier, as regards the sol quotation. So strong was its influence that it was unnecessary to use the stabilization credit arrangement of 30 million dollars. Qualitative and quantitative controls were imposed upon credit, enabling loans to be stabilized, and the Government made every effort to balance the budget. Some indirect taxation was raised and it is planned to eliminate state intervention in the sale of the rice crop, which had been acting as a basis for credit expansion. Nevertheless, the budget for public expenditure adopted for 1955 is 12 per cent higher than in 1954; although this increase is partly accounted for by higher prices and by the transfer of some provincial expenditure to the national budget, it also represents an increment in investments of little immediate productivity and in current expenditure.

Finally, emphasis should be placed upon the intervention of the Central Bank in the exchange market, at the end of 1954, to prevent over-valuation of the sol, when fears arose that there might be a recurrence of the conditions which

² See the *Economic Survey of Latin America, 1953*, pp. 104 and 105.

caused the disequilibrium in the foreign accounts and the recent exchange problems.

II. BRANCHES OF PRODUCTION

1. Agriculture

The over-all situation of Peru's agriculture during the last farm year was satisfactory. Agriculture for export purposes continued to expand in 1954 at the same rate as in recent years, while production for domestic consumption also showed an improvement. These encouraging results were caused by generally good weather, a policy of freedom for prices and business, and by various measures to enlarge the area under cultivation and to increase productivity. Credit facilities for private enterprise were also adequate.

(a) Production trends

Cotton production, which is the principal export item, reached 110,400 tons of fibre. It exceeded the preceding year's crop by 15 per cent and the average yield for the last five years by 33 per cent, thus establishing a record. Almost all the cotton-growing areas enjoyed generally favourable conditions and regular water supplies; particular emphasis should be placed on the irrigation plan in the Piura Valley, which was completed at the end of 1953 and permitted the entire area sown to be harvested. There were no serious blights or pests. Furthermore, a high technical level was attained. Peru's cotton yields are, after Egypt's, higher than those of any other country in the world and there are good prospects for future expansion.

In spite of the 50 per cent tax difference between the sales price of cotton and the official cost price, net prices received by the planter in 1954 showed an improvement of 20.4 per cent above the previous year and meant a real increase in his income, given the much lower rise in the cost of living and in wholesale prices.

Sugar production reached equally satisfactory levels. From figures for the first nine months, it may be estimated that the exceptional yield of 626,000 tons in 1953 was repeated in 1954. The factors which aided those two abundant harvests were good weather, a small extension of the area under cane, technological improvements causing a substantial rise in productivity, and the large investments which the industry has made. Once again the yield was relatively very high (80 tons of cane per hectare sown) and places Peru only second in the world to Hawaii. These circumstances and the fact that sugar cane can be processed throughout the twelve months of the year have enabled Peru to compete on the world market, despite the high cost of artificial irrigation. But market difficulties, combined with other factors such as the limited availability of land, prevent this activity from expanding still further, despite the advantages described. There has been very little change in the cultivated area since pre-war days and the considerable increase in production, through better yields, has mainly served to satisfy the growing domestic demand.

Coffee production was subject to the two-fold stimulus of favourable market conditions and good yields; the crop of 9.2 thousand tons exceeded that of 1953 by 20 per cent. It is hoped that the good quality of Peruvian coffee and the possibility of increasing productivity will prevent the recent drop in prices from discouraging this incipient expansion.

In contrast, rice production, which was affected by bad weather, stood at 255,000 tons and was almost 8 per cent

lower than that of the preceding year, leaving only a small exportable surplus.

The production of wheat slightly exceeded that of 1953. The Plan de Fomento Alimenticio (Food Development Plan) continued in force and price controls were abolished, but domestic consumption was so high that not less than 60 per cent had to be met by imports. Furthermore, the potato crop fell from 1,385 thousand tons to 1,118 thousand as a result of a severe plague which reduced yields.

Final data on the other agricultural products, mainly earmarked for domestic consumption, are not yet available, but the fact that foodstuffs imports declined while supplies improved suggests that the favourable trend of the last few years has continued.

(b) Development policy

The aim of a more accelerated development of agricultural activities found expression in a number of official measures covering the widely-varying aspects of this sphere. Undoubtedly the most important was the enlargement of agricultural areas by irrigation in the coastal strip and colonization in the forest zones.

Investments in the national irrigation scheme were limited to 54 million soles in 1953/54, as compared with 135 millions in the preceding year, owing to the Government's policy of reducing public expenditure. The first stage of operations in the Piura Valley (irrigation for 31,000 hectares) is now complete. The second stage consists of the reclamation of 40,000 hectares of waste land, for which an 18-million-dollar loan has been granted by the International Bank for Reconstruction and Development and 200 million soles contributed by the Government. Of the remaining projects included in the plan, a start has been made on irrigation work on the left bank of the river Mantaro, which will provide 8,620 hectares with a permanent water supply, while work has proceeded on the plans in Tacna, Santa Rita de Siguan and Celedín, which covers 6,600 hectares. Credit from the Banco Agropecuario del Perú and the mechanized equipment loaned by the Ministry of Agriculture enabled private enterprise to help in enlarging the area under irrigation by using underground water supplies, ground levelling and improved water-courses.

The programme of colonizing the forest zones continued. With the co-operation of foreign capitalists, work began in the Pucallpa area to colonize 400,000 hectares. The programme also covers 100,000 hectares in the Tambopata Valley and from 300,000 to 400,000 in the Utcubamba Valley, 100,000 in the districts of Jaen and Bagua, and 200,000 in the Huallaga Valley, at Tingo María. The project in the Pucallpa area comprises all the features of a rational plan: urban centres, sanitary posts, experimental stations, roads for opening up the district, airfields, sites for European settlers, and so on.

In 1954, agricultural and livestock activities received more liberal credit from the Banco Agropecuario, which increased its loans by 12 per cent in relation to the previous year, concentrating particularly on rice, coffee, cattle-breeding, etc. In establishing supervised credit as part of a programme designed to restore the economy of the native communities in Cuzco, this Bank had the benefit of United Nations technical assistance. Mention should also be made of the 5-million-dollar loan granted by the International Bank for Reconstruction and Development, with a guarantee from the Peruvian Government, to enable

the Banco Agropecuario to give more generous aid to agricultural activities, in particular for importing machinery, cattle and irrigation equipment and for building processing plants and refrigerated warehouses.

Some progress was likewise made in mechanization, imports of farm machinery having considerably increased in the last few years. In 1954, the Ministry of Agriculture's special service for this purpose (established in 1952) received a loan of 1.7 million dollars from the Bank, earmarked for buying heavy equipment for preparing soils, opening up canals, drilling wells and clearing woodland.

Finally, the authorities devoted particular attention to the production and distribution of improved seeds, to sanitary inspection, and to research aimed at obtaining species which give a better yield and are more resistant to disease.

2. Mining

The weakness in world prices for lead and zinc and the proposal to increase import duties in the United States caused most unfavourable prospects for Peruvian mining at the beginning of 1954. But a reaction in prices and the rejection of the proposed tariff in the United States changed the scene, enabling lead and copper output to reach at least the same levels as in 1953 and a slight increment to be achieved in zinc production.

There was a substantial rise in iron ore output. During 1954, 1.17 million tons of iron ore were exported, this figure representing an increase of 111 per cent in relation to the preceding year.

Progress was less pronounced for fuels. Petroleum output stood at 2.73 million cubic metres in 1954, a rise of 7.3 per cent over the preceding year's. But the demand of the domestic market grew by 12 per cent in relation to 1953 and entirely absorbed the increment. Refined products amounted to 2.32 million cubic metres while 360 thousand cubic metres of crude oil were exported. The exportable surplus continues to decline as domestic consumption expands, but the latter's rate of increase is higher than that of output. It appears that the search for new oil fields has not yet given the anticipated results. From March 1952, when the new Petroleum Law was adopted, until December 1954, 25 wells were drilled in the northern coastal zone, while five more are being drilled in the areas of the rivers Marañón and Ucayali.

But of more importance for the future than the figures for mining output is the agreement signed between the Peruvian Government and a subsidiary of one of the great world copper-producing combines to exploit the Toquepala, Quellaveco and Cuajone deposits. Those of Toquepala, in the Department of Tacna, contain reserves proven to date at 600 million tons of copper ore, with an average content of 1 per cent. A sum of 10 million dollars was spent on prospection, while exploitation will require an investment of 206 million dollars, of which 100 millions will be covered by a loan from the Export-Import Bank, already authorized, and the rest by contributions from United States firms and by other financing operations. Work will begin 18 months from the date of the agreement (November 1954), while output is planned to reach 140,000 tons annually during the first ten years and 90,000 tons thereafter.

3. Industry and energy

In contrast with agriculture—where adverse factors for the over-all economy (for instance, the depreciation of the

sol) acted as an incentive for greater production—the effect upon industry was unfavourable. The fall in the rate of exchange caused both the foreign and the national raw materials required for manufacturing to become more expensive. But the large stocks of imported goods on hand which competed with domestic products precluded an increase in sales prices. These facts, combined with the lower purchasing power of the population, brought about by income distribution and credit restrictions, will explain why little or no production increase was registered for Peruvian industry in 1954, judging by the available information which is as yet very incomplete.

Cement output stood at 229,500 tons in the first half year and may be estimated at 450,000 for the whole year, which would have covered 90 per cent of consumption. For the project of the Pacasmayo plant, which is to have an annual capacity of 120,000 tons, a loan of 2.5 million dollars was granted by the International Bank, on condition that national capital should contribute 50 million soles. This condition has already been accepted. But less activity was visible in the building industry, both in the private sector, owing to credit restrictions, and in the public sector, where the programme of public works had been limited to the most essential projects and those already well advanced.

Except in the case of wool, the textile industry showed signs of recovery under the protection of tariff barriers.

The enlargement of the existing tyre factory was completed in April, so that 136,000 units can now be produced annually. Another tyre factory, a subsidiary of a United States firm, is being established at a cost of 3 million dollars and will have a capacity of 50,000 tyres each year.

Since the growth of the other industrial branches was very slight, aggregate industrial output may well be assumed to have remained almost stationary. The outstanding event for the immediate future was the renewal of work on the Santa Valley hydro-electric plant and the iron and steel mill at Chimbote. In June, an agreement was reached between the Corporación Peruana del Santa and a French financial group which has undertaken to complete both projects in a period of two years. The investment represents 300 million soles, which, added to the capital outlay during the last ten years, should bring the total investment to 625 millions. At the end of two years, the annual output is planned to reach 60,000 tons of sheet and structural steel, which would be sufficient to supply 60 per cent of the country's requirements.

During 1954, there was no appreciable change in the installed potential for electric energy in Peru, which remained at some 330,000 kW. Nevertheless, substantial progress was accomplished in the works now being established. In the capital, the present output of 159,000 kWh will cover the requirements of Greater Lima until mid-1955. To cover the possible demand until 1959, work was begun in January 1953 on the re-routing of the river Rimac, which by sending the waters through two successive power plants—Callahuanca and Moyopampa—will generate 47,500 additional kW. Elsewhere in Peru, construction of other power plants is proceeding, in particular the hydro-electric station of Paucartambo, in Yaupí Bajo, with a capacity of 60,000 kW, which is being built by a mining corporation to increase its output. In addition, thermo-electric plants are being constructed at Arequipa and Chiclayo with respective capacities of 4,000 and 2,500 kW, as well as other smaller and private installations which together will have a capacity of some 16,000 kW.

Chapter XV

URUGUAY

I. FOREIGN TRADE AND THE MONETARY SITUATION

1. *General considerations*

A thorough analysis of Uruguay's economic situation cannot be carried out for lack of data on gross income, consumption and investment. The somewhat contradictory picture that can be pieced together from partial information and a few isolated indices such as those on agricultural production, on the volume of exports and imports, and on the terms of trade, do not allow the recent degree of economic growth nor the progress achieved in 1954 to be determined. The increase in agricultural production coincided with a contraction in exports, while the slight improvement in the terms of trade barely sufficed to offset the lower exports and to maintain the capacity to import. But higher imports caused the capacity to import to be exceeded and the surplus in the balance of payments of the previous year was converted into a deficit.

The internal scene showed that the over-all rise in prices was the outcome of expansionist influences which, originating mainly in the fiscal sector, counterbalanced the restrictive action of the external factors.

2. *The balance of payments and foreign trade*

(a) *The balance of payments*

Because the inflow of foreign capital is normally considerable¹ and receipts for services have continued to decline, Uruguay's capacity to import depends almost entirely upon exports. This capacity has remained virtually stationary and contrasts with the abrupt cyclical variations in imports, which thus caused strongly opposed surpluses and deficits, as well as pronounced fluctuations in available goods and services.

It is to this situation that the deficit of 15 million dollars in the balance of payments during 1954 must be attributed. In fact, the current value of imports rose by more than 30 per cent, while no change occurred in the capacity to import. The higher imports of goods and services arose from the need to replace stocks—almost exhausted in consequence of the severe restrictions during 1953—and to avoid the stagnation which would otherwise have occurred in industrial activity and the supply of the domestic market. As a result, the Government was more liberal in granting exchange permits, despite the unfavourable foreign exchange position.

The net inflow of foreign capital registered a slight increment, thanks to disbursements amounting to more than 12 million dollars on the part of the International Bank for Reconstruction and Development. The Export-

¹ During the post-war period, until the outbreak of hostilities in Korea, a substantial inflow of European capital arrived in Uruguay, apparently as a precautionary measure in face of the threat of another war.

Import Bank approved a new credit of 2.5 million dollars for the enlargement of an iron and steel works, but no part of this sum has entered the country to date. Statistics on movements of private capital are not available, but reference was made in the Press to the transfer of funds for investment in holding companies that enjoy preferential treatment in Uruguay. Investment of this kind had been very intensive during the post-war period, up to 1951.

The deficit may well have exceeded 15 million dollars in the balance of payments, to judge from figures of foreign exchange transactions and statistics for the movement of reserves, above all those almost exclusively used to finance the deficit. Exchange transactions resulted in a negative balance of 25 million dollars, and reserves fell by over 40 millions. Such discrepancies between the movements recorded in the reserves of the Banco de la República on the one hand, and in the balance of payments on the other, as well as between the apparent balance and the variations of reserves within the balance of payments itself, recur every year. They arise from adjustments to the balance-sheet, from the role played by the foreign exchange assets of private banks and from the importance of clearing accounts in payments agreements. Whatever the reason, the available data show that Uruguay was obliged to make intensive use of its international reserves during 1954.

The situation was probably even more unfavourable if considered by currency areas. The United States, which is the best wool market, purchased less during 1954, and this seriously affected Uruguay, despite the reduction of the surcharge in customs duties which the former country previously applied to imports of wool tops. Balance-of-payments deficits with most of the countries of Western Europe were also greater, but the surplus rose with the USSR and Eastern Europe, which substantially increased their purchases of Uruguayan products.

(b) *Foreign trade*

World market conditions for Uruguay's staple exports were not very satisfactory during the year under review, so that the volume of some of them was appreciably smaller. This was principally true of wool, total shipments of which were approximately 25 per cent less than in 1953, and of cattle hides and sheepskins, where the reductions amounted to 30 and 40 per cent respectively, between the two years. Other products partially offset these losses, the greatest increases being recorded for beef and mutton, wheat-flour, oilcake and linseed-oil. All in all, the total quantum of exports was 3.5 per cent lower than in 1953, an insignificant reduction, if it is recalled that wool accounts for more than 40 per cent of aggregate exports.

The prices quoted for Uruguayan wool, which were higher than those on the world market, were apparently

responsible for the lower exports.² Uruguay's export prices for greasy wool were, in fact, 6 per cent higher than in 1953, whereas on markets abroad prices remained approximately the same from one year to the other. Furthermore, the export value of wool tops, which had been increasing each year, also decreased by 5 per cent with the reduction of the effective exchange rate applicable to export proceeds which offset the lower import duties on wool tops in the United States.

The growing importance of the markets in Eastern Europe and the USSR for some basic commodities such as linseed-oil, wool, hides and meat, prevented the decline in Uruguay's exports from being greater. During several months of the year, this group of countries took first place as purchasers of Uruguayan products, although imports from those sources were insignificant or practically nil.

The 1954 quantum of imports was 25 per cent larger than in 1953, following a trend similar to that in other Latin American countries and basically for the same reason, namely, the need to renew the stocks depleted during the two preceding years when imports had been drastically curtailed. The increment is outstanding when it is recalled that the capacity to import was barely the same as in 1953.

The composition of imports shows that the share of consumer goods declined still more than in 1953. Capital goods accounted for a major share of the rise in aggregate purchases, because of selection through foreign exchange control. The proportion of raw material and fuel imports remained at 1953 levels, or declined slightly, although, as noted earlier, their absolute value increased.

Despite the relative stability of wool prices on the world market, in 1954, Uruguayan export prices were 7 per cent higher than in 1953, probably because better quality wool was sold.³ This increase and higher prices for other secondary exports adequately offset the decline in hides, linseed-oil and meat, the latter item being the least affected, with a decrease of only 2 per cent. As a whole, the aggregate price index for exports was 4.7 per cent higher than in 1953.

Since import prices also increased—albeit very slightly—the improvement in the terms of trade was only 4 per cent above the 1953 level.

3. The monetary situation

In 1954, the restrictive effect of the loss of international reserves weakened the expansion which had begun during the previous year. But its action combined with that of internal factors caused cost-of-living indices to rise by 10 per cent.

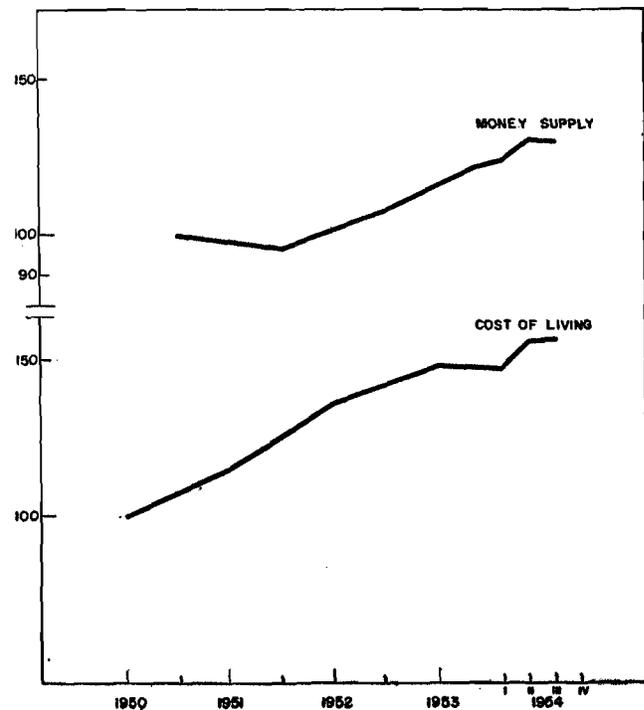
The influence of these factors largely arose from the changes in Uruguay's external position. During periods when the terms of trade were very favourable and the volume of foreign trade stood at peak levels—immediately after the war and during 1950-51—a policy of wage increases, consumer subsidies and development of production could be applied without affecting monetary stability, particularly as the relative rigidity of currency issues had prevented an exaggerated expansion in the money supply,

² The lower exports refer in particular to those markets where Uruguay's wool competes with that of other sources.

³ Higher prices paid by Eastern European countries must also have had some effect.

Chart XLI
URUGUAY: INDICES OF THE MONEY
SUPPLY AND COST OF LIVING

1950=100
(Semi-logarithmic scale)



at least until 1950. Moreover, the abundant receipts accruing from duties on foreign trade and the multiple exchange rate system, together with a satisfactory volume of saving, enabled growing public expenditure to be financed without risk of inflation. From 1950 to 1951, the rise in the cost of living—concurrent with a marked stability of the money supply—was apparently caused by a redistribution of income in favour of the wage-earning sector and a corresponding increase in consumer demand.

But, since 1952-53, the action of the external factors has disappeared; as prices for exports dropped, so costs have risen and, since official social and economic policy have not altered, disequilibria have appeared both in public finance and in the private sector, which was solved by increasing the money supply. The greater public expenditure during recent years may be attributed to the need for improving the economic equipment of the country and for raising productivity.

Despite the stabilization of expenditure on personnel⁴ and the increase in taxes, the budget deficit in 1954 amounted to 50 million pesos, or a lower figure than in 1953. Firstly, revenue from exchange differentials did not reach the expected figure and, secondly, investment and subsidies for various sectors of the economy have grown considerably. The funds accruing from public debt bond issues, which have steadily risen, were insufficient to cover the deficit because social security institutions have largely restricted subscriptions in order to meet greater commitments arising from new benefits for their members. The

⁴ The wages of civil service employees were not raised between November 1953 and November 1954, because the Constitution forbids such increments during general election years.

Government was obliged to resort to bank credit although the amount of these loans (Treasury bonds and Central Bank credit) is as yet unknown.

The imbalance in the private sector, caused by the rise in the cost of living, generated speculation and a demand for new salary adjustments which were granted in most cases. Such were the prevailing inflationary pressures that these adjustments did not represent a transfer of income, but rather additional nominal income and higher prices arising from expanded costs and greater monetary demand. The same pressure was caused by the measures to solve the problem of agricultural surpluses and to ensure a minimum income for farmers. In order to finance wheat purchases for the State, the Bank of the Republic was authorized to issue redemption vouchers for buying wheat, thus additionally strengthening the trend imposed by external factors towards a greater flexibility in note issues, as described in the *Economic Survey of Latin America, 1953*.

The fact that negotiations were opened in 1954 with international credit institutions and foreign capitalists to obtain substantial loans, demonstrates that the authorities have decided to maintain the investment rate with foreign financial help, thus compensating for the reduction in foreign trade revenues. In 1954, the Government took little action on the exchange rate system. Readjustments—in some cases provisional—of certain exchange rates were introduced to solve exceptional situations, while the Government also intervened in the free market to prevent any marked depreciation in the rate of the national currency.

II. BRANCHES OF PRODUCTION

1. Agriculture

Agricultural production increased to 9 per cent above the 1952/53 level and by 25 per cent in relation to 1949/50. Crop production accounted for the whole of this increment, because it was aided by official guarantee prices and very favourable weather. Record harvests were obtained for some products, to the extent that the increase in relation to the previous year stood at 30 per cent. On the other hand, livestock production decreased by 2.4 per cent. The natural obstacles hindering an expansion of the agricultural land area in Uruguay have intensified competition for the utilization of land among the different crops, between cattle and sheep, or, in fact, between livestock activities and crop cultivation generally. Agricultural crops contribute 42 per cent to over-all production, while in 1949/50 their share amounted to only 31 per cent.

(a) Crops

In addition to a greater area sown, the good results of the farm year in Uruguay were influenced by the highest unit yields ever recorded, thanks to the more intensive use of improved seeds and fertilizers.

The wheat harvest stood at the peak figure of 820,000 tons, which was almost double the figure for 1952/53. The exceptional tonnage gave rise to storage and foreign marketing problems. Despite the unpromising prospects on the world market, the Government decided to maintain the minimum prices for the new crop.

Barley production increased to 40,400 tons (76 per cent higher), stimulated by the greater demand of a new brewery and of those already in existence. Oats also rose

55 per cent in relation to the previous year, thanks to good weather conditions, the crop totalling 59,700 tons.

A record rice crop was harvested (58 thousand tons) and has provided an exportable surplus of some 20,000 tons which had to be subsidized for export abroad.

Oil-seeds have followed a very different course, since the Government withdrew the stimulus of guarantee prices some years ago. Production has been declining, but export surpluses are still available which, since August 1954, have been sold by means of preferential exchange rates.

Crops of cane and beet sugar have continued to expand, encouraged by Government subsidies which aim at relaxing the pressure of sugar imports upon the balance of payments and at improving farming in certain areas of the country. Cane production rose to 40,000 tons, and beet sugar to 152,000, or 48 and 46 per cent above the 1952/53 level respectively. Sugar manufacture stood at some 22,000 tons in 1954, supplying one quarter of the domestic consumption. The sugar industry made substantial investments with a view to raising productive capacity to 50,000 tons.

(b) Livestock

The value of livestock production as a whole declined, since fewer head of cattle were slaughtered and this decrease was not offset by the larger wool clip.

The displacement of cattle-breeding by sheep—a typical development of Uruguay's livestock farming—became more marked in 1954. In 1951-54, cattle numbers dropped from 8.2 million head to 7.5 millions, while the sheep population increased from 23.4 to 27.0 millions. The cattle-sheep ratio which in 1946 stood at 2 to 2.9, has become 1 to 3.6. Since Uruguay's carrying capacity has not increased since 1947, recent increases in sheep numbers have not only caused a decline in the cattle population, but also a considerable delay in fattening the stocks because of pasture shortages.

The wool clip stood at 92,000 tons, or 6.7 per cent above the preceding year and some 20 per cent higher than the average for the last five years. After deducting domestic consumption, which is growing slowly, the exportable surplus amounted to 83,000 tons.

In 1954, discussion of the support to be given to wool production continued, because from 1952 until September 1953 it had been fostered by a 50 per cent decrease in export duties, which is equivalent to 8 per cent of the price. When the full duties were reinstated for the 1953/54 clip, farmers requested, but were refused, renewed aid through a more favourable exchange rate. Authoritative technical surveys reveal that even with the official basic rate of exchange, sheep rearing is 60 per cent more profitable than cattle raising. A more favourable exchange rate for wool would have aggravated the displacement which the authorities consider to be a threat to the equilibrium of livestock activities.⁵

The slaughtering of cattle for meat production reached the lowest level during the last five years. Slaughtering and exports of cattle-on-the-hoof stood at 1.4 million head, or 14 per cent below the 1953 level. In addition to the unfavourable factors already mentioned, cattle rearing was also adversely affected by the preferential rate of exchange

⁵ *Informe sobre la producción y comercialización de la lana.* Economic and Statistical Section of the Ministry of Agriculture and Livestock, Montevideo, December 1954.

authorized for corned beef exports in April 1953, which encouraged sales to the packing industry and the slaughter of cattle that required at least another year to meet age and weight standards. A reduction of availabilities in 1954 therefore took place. During the final months of 1954 the slaughter of bull and heifer calves was forbidden and restrictions were applied to the slaughter of cows less than six years old. The improvement in beef prices which took place in 1954 may lead to a recovery in cattle raising, as the comparative advantages of wool production gradually disappear.

(c) *Development measures*

The agricultural development plan, based on recommendations of a joint FAO/International Bank Mission, is still awaiting approval by Congress. Investment estimates for the first, experimental, stage represent about 20 million dollars, of which the International Bank would contribute 5 millions. The plan will be implemented over a two-year period and would cover some 1,300 farms with a total area of 1.7 million hectares, that is, slightly more than 10 per cent of the total land area at present utilized for crop and livestock production. Under this programme, farmers who own less than 5,000 hectares and who wish to obtain official credit must commit themselves to a minimum plan of work and farming practices, including sub-division of meadows and rotation of grazing; construction of works to supply livestock with water; fertilization of 5 per cent of each farm's area and subsequent resowing with legumes or improved grasses; storage of fodder; adherence to animal sanitation regulations, etc. Farms over 5,000 hectares will receive only technical assistance. Although the plan is still not in force, many cattle raisers have begun to put some of its recommendations into practice. In anticipation, the Government has initiated a campaign for sowing 100,000 hectares with leguminous fodder plants, a target which it is hoped will be achieved by the end of 1956.

2. *Industry and energy*

Industrial activities cannot be adequately analysed because of the shortage of statistical material. Nevertheless, the substantial rise in imports of machinery, equipment, raw materials and intermediate products, as well as the increase in energy consumption for industrial use, appear to indicate some progress and a higher output. Furthermore, import licences for goods similar to those produced domestically were almost all prohibited.

There was some decline in the wool sector of the textile industry. To judge by the smaller volume of combed wool top exports, it seems unlikely that production can have attained the maximum level of 13,234 tons reached in 1953. On the other hand, cotton imports seem to indicate that this sector probably maintained the high level of the preceding year. There was no variation in the production of leather.

During the first six months, the cement industry produced 141,400 tons. Considering that, as a general rule, output during the first half year is always smaller than during the second, it is probable that the annual production was roughly equivalent to that of 1953, or 300,000 tons. Cement imports, however, rose above 1953 levels, owing to greater activity in private building, which was assisted by foreign capital particularly for financing the building of blocks of flats for sale on the "flat ownership" system. Work proceeded on the installation of the new ANCAP cement factory, with a capacity of 100,000 tons, which is being built in the Department of Lavalleja.

Installed capacity for the generation of electric energy rose from 240,000 to 290,000 kW when the Montevideo-Rincón de Bonete thermal network (50,000 kW) came into operation. The production of energy increased from 845 million kWh to 927 millions, which represented an increase of almost 9.7 per cent in relation to 1953.

Chapter XVI

VENEZUELA

I. INCOME, FOREIGN TRADE AND THE MONETARY SITUATION

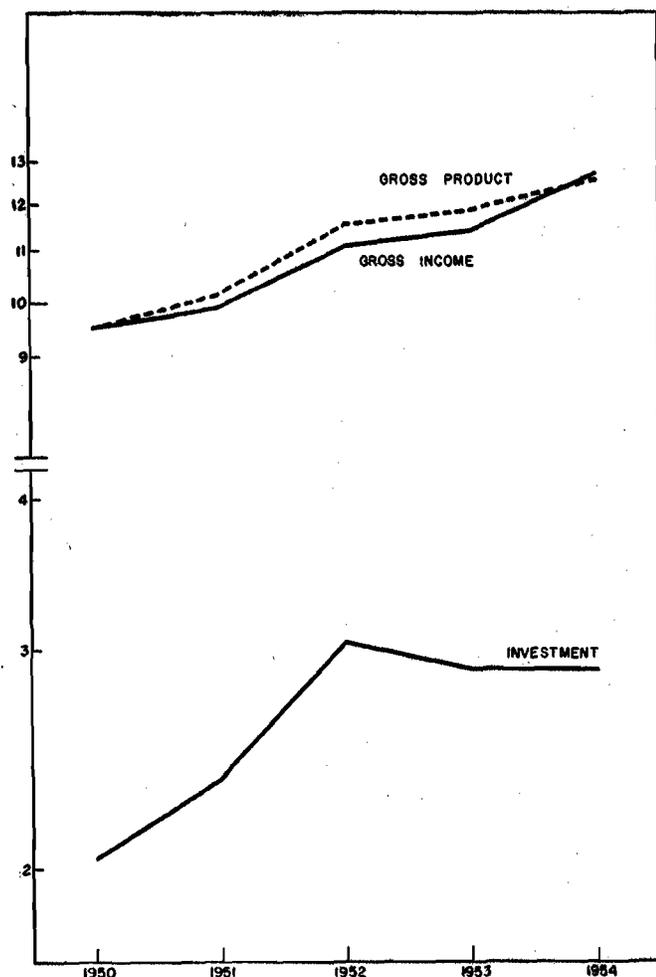
1. Gross income and investment

In contrast to the small increase in gross income registered in the preceding year, the increment of 9 per cent in 1954 may be considered very satisfactory. *Per capita* income rose by 7 per cent, whereas it had fallen by 0.5 per cent in 1953. Investment amounted to 22.8 per cent of the gross income, a ratio which, though high, was lower than in the previous year. The terms of trade, after remaining unfavourable for several years, improved in 1954, while the gross product and available goods showed changes similar to those of income.

Chart XLII

VENEZUELA: INCOME AND INVESTMENT

Thousand million bolivares at 1950 prices
(Semi-logarithmic scale)



The share of the various sectors in the gross product underwent no substantial modifications. Very little ground was lost by the petroleum industry to the other branches of activity and as yet there are no signs of a specific trend in that direction. Of the remaining sectors, industry accounted for the largest increase in the gross product. Aggregate public expenditure fell from 20.2 per cent of gross income in 1953 to 17.6 per cent in the following year. The most pronounced drop occurred in public investment, which had been constituting a steadily declining proportion of the total capital invested, until in 1954 it represented only 20.9 per cent, as against 24.6 and 41.3 per cent in 1953 and 1950 respectively.

The exceptional stability, in no way implying stagnation, which is a feature of Venezuela's economy, is founded entirely upon the petroleum industry. Despite some fluctuations, insufficient to undermine the stable financial and economic position, petroleum exports continued to form the basis for development. But the special nature of this activity, and the fact that only some of the income accruing from it remains in the country, gives rise to some complex problems.

The higher gross income, which between 1950 and 1954 averaged more than 32 per cent, mainly favoured investment. In fact, while capital goods increased by 44 per cent over this period, consumer goods expanded by 26 per cent, and a major part of this rise occurred in 1954 (10 per cent above the 1953 figure). During the three previous years, the increase in consumer goods had barely kept pace with the demographic growth.

The greater availability of consumer goods was largely due to the contribution of domestic production. Imports of this type of commodity are declining: in 1954 they represented only 16.6 per cent of consumption, against 20 per cent in 1950. Capital goods imports, on the other hand, remained high: between 1950 and 1952 a declining trend was evidenced, but in the two following years it was reversed, so that imports of this nature stood at 52.7 per cent of total investment in 1954.

Despite the fall in its coefficient during 1953 and 1954, investment has been very intense in recent years and the product-capital ratio has become steadily lower. The main reason lies in petroleum investment, which, together with petroleum exports, provide most of the funds for developing other economic activities.

These characteristics place Venezuela in a unique position in the over-all picture of the Latin American economy. The decline in the product per unit of capital reflects on the one hand the constant rate of increase maintained by investment, and, on the other, the fact that many such investments mature only over the long term.

These factors all constitute a clear indication of economic growth. But it should be observed that the dynamic

impulse of the petroleum industry appears to have lessened in recent years; this combined with the prospects of competition from other producer regions, raises a serious question for Venezuela's economy.

2. The balance of payments and foreign trade

(a) The balance of payments

The balance of payments showed a surplus of 170 million dollars in 1954, as compared with 175 millions in 1953. The capacity to import increased by 7 per cent, a rate which, although higher than during the preceding year, was still considerably lower than that of 20 per cent, achieved in 1951-52.

The surplus loses much of its significance when it is recalled that there was a slight reduction in the international reserves of the Central Bank. The contradictory or disproportionate movement of reserves in relation to the balance of payments partly accounted for the high proportion of errors and omissions in the period 1950-54. The explanation is, on the one hand, that certain imports were paid for in advance, and, on the other, that there was a large number of unrecorded invisible items, such as outflows of private capital, remittances by immigrants, tourist expenditure, etc. At all events the trade surplus was large, and such discrepancies do not imply that the balance-sheet fails to give a true impression of current trends. The tendency appears to be favourable, especially in view of the expansion under certain headings, as the following figures show:

INCREASES BETWEEN 1950 AND 1953 AND IN 1954

	1950-53	1954
	(Percentages)	
Volume of petroleum exports.....	19	4
Value of petroleum exports.....	27	9
Petroleum companies' foreign exchange revenue remaining in the country.....	46	..
Capacity to import.....	63	7
Exports of other goods and services.....	72	-13

This growth should not be taken as expressing a trend which will necessarily continue. On the one hand, 1950 was the most unfavourable post-war year as regards the capital account, and it is thus not surprising that such high rates of increase should be recorded immediately afterwards.

It is clear from the figures on record that the expansion of foreign trade arose both from the augmented volume of petroleum exports and from higher prices. Earnings from petroleum activities increased still further, and Venezuela's share in such exports rose from 52 to 60 per cent. It seems improbable that trends in prices and in the extent of Venezuela's world contribution will withstand competition from Middle East petroleum for very long. Some discouraging signs have already appeared in sales to the United States.

Final investment statistics are not yet available. The three large petroleum companies announced investment plans similar to those for the previous year, and, although those for the iron ore mines were reduced while remittances of profits were increased, the capital account has not substantially deteriorated since 1953.

As occurs elsewhere in Latin America—although with a less grave and urgent character—Venezuela's future capac-

ity to import is entirely linked with the possibilities of diversifying exports.

Exports other than petroleum and its derivatives registered a striking increase of 72 per cent during the period 1950-53, but they still represent an insignificant proportion of the whole. In contrast, if investment in other activities is included, the contribution of these sectors to increasing the capacity to import rose to 14 per cent in 1953 as against 10 per cent in 1950. But in 1954, because coffee and cacao exports declined and investment by the iron-ore companies, which have almost completed their works, decreased, the over-all trend was unfavourable.

(b) Foreign trade

The increment achieved in 1954 stood at 5.4 per cent, almost entirely the result of petroleum exports, which rose by as much as 7 per cent in spite of the rather doubtful market prospects. A visible decline took place in the expansion rate of refined products; whether this should be attributed to the full utilization of refining capacity, or to a change in the composition of demand, cannot be determined owing to lack of data. Nonetheless, it is certain that the principal Latin American countries gave priority to crude petroleum imports as a result of establishing refineries within their own territories.

Coffee and cacao exports, after a sharp upswing in 1952 and 1953, fell by 43 and 7 per cent respectively, so that they were still below 1950-51 levels. On the other hand, iron-ore exports increased by 150 per cent, as a result of the exploitation of new deposits and more activity at older workings. This expansion was to some extent checked by a 44 per cent drop in prices. The larger quantum of exports and the improvement in the terms of trade enabled the import volume to be increased by 7 per cent in relation to 1953. This is a moderate rise when compared with the increment in other Latin American countries. The stability of the external value of the currency and the liberal import system in Venezuela demonstrate that the expansion in fact corresponds to a growth of real demand. There were no significant changes in the composition of imports.

Apart from iron ore, the basic items of Venezuela's export trade benefited from higher prices than in 1953. Coffee and cacao rose most sharply, but the repercussions were negligible because they represent a small proportion of all exports and the quantum exported also declined. After an upswing in mid-1953, the price of petroleum remained steady during the course of 1954, although the over-all average was 9 per cent higher than in the former year. In the aggregate, export prices rose by 11 per cent, and there was an equivalent improvement in the terms of trade because no substantial changes took place in import prices.

The primary impact of the improvement in the terms of trade was dissimilar to the effect in other countries where the consequent higher earnings were distributed over a large section of the population and were reflected in a greater demand for imports. Conversely, in Venezuela a high proportion of earnings is concentrated in the hands of a few foreign companies and the remainder in the public sector, so that it affects imports far less in so far as such companies do not raise expenditure within the country and the Government freezes its income from this source. Consequently, imports are not expanding in proportion to the enhanced purchasing power accruing from exports, which in 1954 was 15 per cent higher than in the previous year.

The greater capacity of the Middle East petroleum industry has hindered the competitive position of Venezuela's oil on Western European markets, particularly in the Mediterranean area. The principal reason is lower transport charges, although the price system established by the countries supplying the European market has prevented still greater competition which would have been harmful to Venezuela.¹ As a result, exports have been 12 per cent lower to Western Europe. The situation was somewhat different as regards the United States, the principal market for Venezuelan petroleum, and where purchases remained at their previous high levels. Furthermore, the greater exports to some Latin American countries sufficed to counteract the falling-off in sales to Western Europe.

As regards imports, a slow shift was perceptible from the United States to Western Europe, especially France, Western Germany and the United Kingdom. This trend was most pronounced in the case of the capital goods imported by Venezuela.

3. The monetary situation

There was a conspicuous absence of inflationary pressures. The cost of living altered but little in the first ten months of 1954; wholesale prices showed a slight upward trend which virtually disappeared towards the end of the year, while nominal wages have remained firm since 1953. The stability of prices and of the cost of living dates at least from 1948. The volume of the money supply has been practically constant since the rise recorded late in 1952 and the increase in December 1954 may be regarded as seasonal.

The steadiness of the money supply until November 1954 cannot be attributed to a lack of expansionist forces, but rather to the action of absorbing or neutralizing factors, among which variations in official deposits played a fairly important role.² During the first half year, the increase in Government deposits represented assets—taxes, royalties and exchange margins—transferred from the private sector, particularly from the oil companies as a result of higher exports. After July, some of these resources were used for official imports, while half the budget surplus was transferred to a special reserve fund which the Government maintains in the Central Bank. The rise in savings deposits, a possible increase in capital accounts and reserves, and the reduction of monetary reserves in the second half of the year should also be noted.

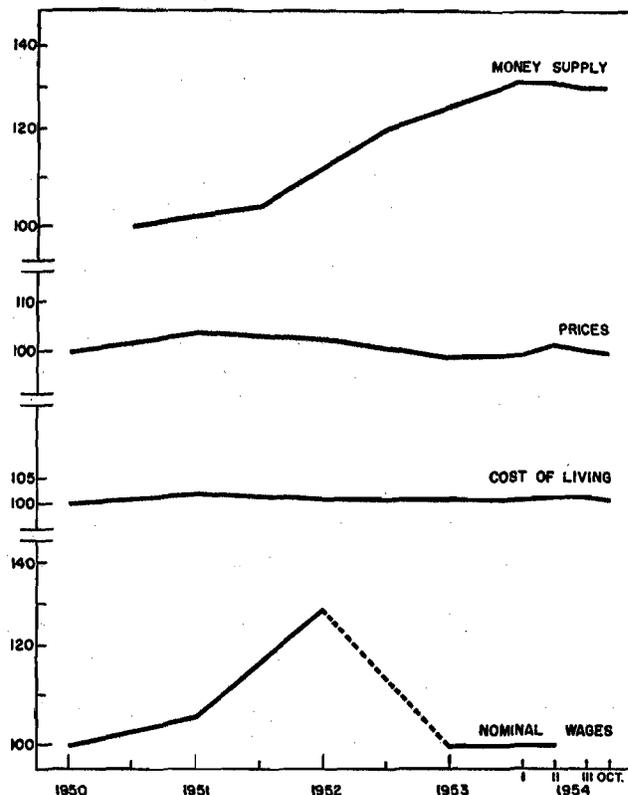
The foregoing factors, together with the rise of available goods in relation to monetary income, might have caused a fall in prices and the cost of living. However, there were several reasons why the indices behaved differently. In the first place, the rise in coffee and cacao affected wholesale prices, which showed a slight upward trend during most of the year, although it was later offset by the lower prices for imports and for some locally produced goods. Moreover, an increase was recorded in the profits of both domestic and exporting enterprises, which have enlarged their stocks.

A comparison of the rise in the gross income with that of currency in circulation shows that with the same money supply a higher level of activity was attained and that

¹ Economic Commission for Europe, *The price of oil in Western Europe*, document W/COAL/39.

² In the case of Venezuela, therefore, official deposits were not considered when calculating the money supply.

Chart XLIII
VENEZUELA: INDICES OF THE MONEY
SUPPLY, WHOLESALE PRICES, COST OF
LIVING AND WAGES
1950=100
(Semi-logarithmic scale)



money therefore changed hands with greater rapidity. This situation was the exact reverse of 1953, when the increase in the gross income was small and far below that of the money supply.

The attitude of the Venezuelan authorities was adjusted to the previous policy of expanding investment while maintaining monetary stability. The nature of financial and fiscal activity and the satisfactory development of foreign trade enabled these aims to be achieved. Firstly, the Government made large investments, either in the form of public works or by granting development loans, without thereby affecting private investment, since most public receipts accrue from royalties and not from taxation. Secondly, the compensatory policy in public expenditure—effected through increasing official deposits and the reserve fund—counterbalanced the influence of the liberal policy of the banks, which increased loans by 26 per cent and neutralized the effects of the sudden changes in the balance of payments.

Nevertheless, a number of circumstances raise the possibility that the stability achieved may soon be shaken. The use of the Government's reserve fund in the Central Bank to finance a vast new programme of public works provided for in the 1954/55 budget implies that a share of the money supply temporarily frozen will re-enter circulation gradually and that monetary income will be created, unaccompanied by any corresponding increase in available goods and services, because of the nature of many investments

An additional proposal—involving fewer risks of inflation—is that of encouraging better and fuller utilization of domestic savings in the interests of the lower-income groups. To this end, it is planned to establish a Banco Nacional de la Vivienda, which would issue mortgages and grant credits for the building of low rental dwellings. This new institution would enjoy official support and authority to accept long-term loans from foreign capitalists.

II. BRANCHES OF PRODUCTION

1. Agriculture

Agriculture in Venezuela is still handicapped by poor techniques and low productivity; in addition, it must compete with cheap imports encouraged by the foreign exchange revenue accruing from petroleum exports. But in recent years, the priority given to agriculture by various State organizations has enabled it to make good progress, which is reflected in the expansion and diversification of production. The import quantum of foodstuffs has undergone little change during the last five years, so that domestic production was responsible for the increase in *per capita* availability.

(a) Production

Despite the damage to many crops caused by bad weather, total agricultural production in 1953/54 exceeded that of the previous year by 2.5 per cent and that of 1949/50 by about 22 per cent.

Venezuela's agriculture is primarily designed to meet the requirements of domestic consumption. The production of foodstuffs for this purpose, the development of which has constituted a main objective over the last few years, was 11 and 35 per cent greater than in 1952/53 and 1949/50 respectively.

Cotton is the only crop to play any important part in supplying raw materials for industry. Coffee and cacao, which are the staple agricultural exports, did not share in the over-all upward trend; on the contrary, in 1954 they contracted sharply.

Maize production, which is Venezuela's most substantial branch of agriculture, was more seriously affected than any other by bad weather conditions, and despite an extension of the area sown, amounted to only 335,000 tons—a reduction of 2.5 per cent. But results for the last two years are favourable and, in contrast with the previous decline, have practically eliminated imports. Similar causes brought about a slight downward movement for rice, production of which was reduced to 48,900 tons; the trend, which was previously an upward one, now represents the accumulation of large stocks, owing to the high rice prices on the domestic market.

The production of pulses³ continued the recovery which began in 1951 and recorded an increase of more than 6 per cent. The tuber crop, which is second only in importance to maize, was 30 per cent higher than in the previous year and exceeded 1949/50 production by 60 per cent; it included, for instance, 370,000 tons of manioc, and 34,000 tons of potatoes. This pronounced expansion arose from the larger area under cultivation, especially in the colonies of the Instituto Nacional Agrario, and from the use of improved varieties imported from Canada and Germany.

³ Including peas, chick-peas, beans, *caraota*, French beans and *quinchoncho*.

The production of oil-seeds, despite an increasing deficit caused by the rapid growth of consumption, showed a significant rise, which assumed exceptional proportions—from 1,600 to 7,000 tons in the case of sesame. This was not true of cotton-seed, where poor crop and climatic conditions caused a slight decline from 8,900 to 8,300 tons. To encourage the production of edible oil-seeds, the previous credit assistance was supplemented by the introduction of a new marketing method, whereby oil manufacturers order the future crop at pre-determined prices.

The intensive development of sugar cane and the inauguration of three new refineries enabled substantial progress to be made in sugar production: 26,600 tons in 1948, 71,800 in 1953 and 98,700 in 1954.

Apart from the cyclical fluctuations inherent in its cultivation, coffee production was seriously affected by the weather and dropped by almost 25 per cent in relation to 1952/53, reaching only 41,300 tons. The cacao crop remained at the level of the previous year (16,000 tons).

For the first time during the last five years, meat and dairy produce⁴ showed a small decrease of 0.8 per cent, mainly because fewer cattle and sheep, although rather more pigs, were slaughtered. Venezuela has found no solution for the serious basic problems which have hitherto prevented any substantial development in this sector. Thus, the greater meat production prior to 1954 may be attributed to increased slaughtering in response to the high prices quoted for cattle. The adverse conditions for livestock activities were also reflected in the appreciably lower average weight of the animals and in the lengthy period required to rear prime fat stock.

(b) Development policy

The Government continued to pursue its agricultural development policy during 1954. Work progressed on the plans and programmes already described in the *Economic Survey for 1953* and it only remains to comment on the new measures and some of the results in 1954.

By means of a widespread system of silos and granaries situated in the main farming centres, storage capacity of 140,000 tons was reached. The enlargement was of particular value in the case of rice, and will be of still greater use when three more granaries, with a joint capacity of 27,000 tons, are completed in the near future.

The rice-growing campaign reached the stage of satisfying the entire national demand, and it is hoped to consolidate this achievement by means of new colonization plans, whereby costly dry-soil production will be replaced by cultivation in irrigated areas; the areas so used for rice can be combined with stock-breeding. By 1956, the sugar industry will also be able to meet aggregate domestic requirements and it is proposed to integrate output with the processing of its principal by-products, molasses and bagasse, in the preparation of yeast and of pulp for paper making, respectively.

Exceptional encouragement was given to stock-breeding. To the various measures of direct assistance to farmers which already exist, was added the establishment of several official centres for breeding, especially for zebu cattle, and experimentation. Some will provide stud facilities. The dairy industry will benefit from a new powdered milk

⁴ Including cattle, pigs, sheep and milk.

plant on which work has begun in the State of Zulia, and another for pasteurization in Táchira State.

The Ministry of Mines is completing surveys for the installation of an ammonium sulphate plant to produce 36,000 tons of fertilizers each year, utilizing the natural gases from the petroleum deposits and gypsum as raw materials. An additional plant, with an annual capacity of 9,000 tons, is also to manufacture fertilizers from phosphates produced in Venezuela.

Improved credit facilities include the establishment of certain regional banks which will be in closer contact with farmers and will therefore be able to exercise stricter control over the use of credit.

2. Mining

(a) Petroleum

Petroleum output had expanded steadily until 1953, when there was a temporary pause. But in 1954 it rose again, on this occasion to a peak level of almost 110 million cubic metres, that is, 7 per cent higher than in the preceding year.

In spite of the somewhat uncertain prospects on the world market, especially in Europe, created by competition from the Middle East, the companies in Venezuela maintained production at its normal rate. Investments (including re-investments) were close to 250 million dollars in 1954, while the number of drillings continued to increase, although no new concessions were established. Oil reserves were discovered in the Oficina district in the east, and at Barinas.

The pipeline connecting the Lake Maracaibo wells with the refineries of the Paraguaná Peninsula began to operate with a transport capacity for 750,000 barrels of crude. The decision has been taken to build another pipeline from the same district to Palmerejo.

In December, the large gas-injector installation on Lake Maracaibo were opened, the investment being 16 million dollars.

(b) Iron ore

The most important event during 1954 was the first shipment of iron ore from Cerro Bolívar to the United States. According to estimates, these exports will amount to 5 million tons annually and could if necessary be raised to 10 millions. The Cerro Bolívar reserves have been assessed at 500 million tons, with a 64 per cent grade. Venezuela's total iron ore reserves, according to estimates of the Central Bank, are distributed as follows: 632 million tons are shared among various mining concessions; 407 millions are the property of the nation; and 520 million tons have been estimated but not accurately proven.

Production virtually began in 1951, and by 1954 it stood at 5.4 million tons. Several companies are working the iron ore reserves and prospecting in different parts of the country.

The only item of interest as regards other minerals in Venezuela was the increase in gold production, which reached 1,744 kilogrammes, or double that of 1953 and

the highest output since 1949. Coal production remained at the same low level as in previous years.

3. Industry

Petroleum activities had a contradictory influence upon Venezuela's industrial development. The substantial revenue accruing from it enables the investment for industrialization to be made and the required capital goods to be imported, as well as raising the level of domestic demand. But the fact that so much foreign exchange is available encourages imports and therefore foreign competition. Notwithstanding high protective duties, the competition continues to be keen because domestic industry must bear heavy production costs, in which wages play an important part. Moreover, the domestic market cannot yet absorb large-scale production. Nevertheless, despite the gravity of the obstacles, the incentives have been present and over the last five years industrial output has made an outstanding increase of 43 per cent. During 1954 it rose by 9 per cent in relation to the preceding year. If building and oil refining are excluded, the progress is even more substantial.

Output expanded less in the textile sector than during recent years; yarns and cotton fabrics maintained practically the same levels as in 1953, but activity increased in the rayon industry. The production of foodstuffs rose by 11 per cent; but there was no change in beer and soft drinks. Tyre output established a record with 370,000 units.

Durable goods industries also expanded considerably. The output of 1,175 thousand tons of cement almost entirely covered the demand, enabling imports to be reduced to a minimum.

One of the objectives of Venezuela's economic policy is the establishment of an integrated iron and steel industry. Natural resources appear to be adequate for the installation of a steel mill on an economic basis. Excellent iron ore is available, and although no coal known to be suitable for coking is to be found in the neighbourhood of the iron ore deposits, there is no lack of hydro-electric power or of natural gas from the oil wells. The plans being studied at present envisage the construction of a plant near Puerto Ordaz, which is to enter production in 1958 and to represent an annual capacity of 150,000 tons, would require an investment of 60 million dollars. The petroleum industry and the rapid industrial development have both caused Venezuela to rank as the highest *per capita* steel consumer in Latin America. This fact underlines the importance of the plans to establish a domestic steel industry.

Petrochemistry is another basic industry which is in course of installation in Venezuela. The first stage will be a nitrogenous fertilizer factory which will utilize natural gas as its main raw material. In addition, the Corporación Venezolana de Fomento is reviewing the possibilities of acquiring a caustic soda plant with an annual capacity of 2,000 tons; of installing a mill for the manufacture of paper from bagasse, with a capacity of 15,000 tons; and thirdly, of establishing a 750-ton plant which will utilize molasses from the sugar refineries to produce yeast for leavening.

