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Part Two

SECTORS OF PRODUCTION

Note: This text is incomplete and provisional and subject to changes in substance and presentation which will be incorporated in the final printed version.

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Chapter I

INDUSTRY

I. GENERAL DEVELOPMENT

A decline in the growth rate in 1959 - following two years of rapid expansion - and its subsequent recovery in 1960 have marked the recent trend of industrial production for Latin America as a whole. The rate of increase of the product in the area's manufacturing sector was about 7 per cent in 1959, compared with rates of a little over 10 per cent in the two previous years. In 1960, according to the provisional data available, there was a further improvement of 10 per cent as compared with the previous year.

These general features of the development of the product in the manufacturing sector reflected trends which varied substantially from one country to another. But the temporary decline in the general growth rate in 1959 was connected with a drop in overall demand and also with labour disputes which were particularly protracted and severe that year in Argentina - whose figures carry great weight in Latin American totals - and also occurred in Peru and Uruguay.[1/] In 1960 - or at least during part of the year -, the adverse effects of the decline in demand were felt in Argentina and Uruguay. On the other hand, they seem to have been overcome in Colombia and Peru. In Argentina, industry showed signs of rallying during the second half of the year.

The general increase over these two years can be attributed largely to the large-scale expansion of the manufacturing industry in Brazil and Mexico resulting from the investments of previous years and the growing external savings achieved by industry in those countries. Moreover, the apparent recovery of Argentine industry towards the end of 1960 seems to be related to the development of a few specific activities.

The industrial boom in Venezuela was interrupted in 1960, reflecting a generally less favourable development related, among other things, to problems affecting the market for its chief commodity. In Chile, one third of the

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1/ Moreover, the supply of electric power in Uruguay was severely cut for several months as a result of floods in the Negro River Valley

/population suffered

population suffered the effects of the violent earthquakes which occurred in May and industrial output dropped slightly following a widespread recovery in 1959.

As in previous years, a general feature of the development of the Latin American manufacturing industry was the vigour shown by the newer industries - those engaged in the manufacture of intermediate products and metal transforming - compared with the barely vegetative growth of many industries manufacturing current consumer goods. The fact that these dynamic branches of the industrial complex already account for a considerable share of the total manufacturing output of the relatively more advanced countries helps to maintain the high annual growth rate of the industrial product. Many of these branches of industry are engaged in the production of import substitution items, although the limited capacity of some, in spite of their rapid development, has not kept pace with the rapid rise in demand.

II. ANALYSIS OF SELECTED BRANCHES OF INDUSTRY

1. Industries producing basic and intermediate materials

(a) Iron and steel industry

The iron and steel industry, a key industry in the development of manufacturing activities in Latin America, continued to progress at a rapid rate in 1959 and 1960 both with respect to volume of production and plant expansion.

Output of crude steel - rising rapidly in Brazil and Mexico and at a more moderate rate in several other countries - exceeded 4.5 million tons in 1960, which was three times the volume produced ten years before. (see table 1). In the final stages of this expansion process, a growth rate of nearly 13 per cent was reached in 1959 - higher than the rates for the two previous years - and of 11.5 per cent in 1960. The latter figure represents the maximum use of installed capacity, including the capacity already available and the additional facilities which subsequently entered into operation. In view of the expansion programmes now being carried out, there is every reason to believe that the slowing down in the growth rate in 1960 was only temporary.

/A substantial

A substantial increase was also achieved in the manufacture of finished steel, although it should be noted that the rate of expansion followed a somewhat different pattern - lower in 1959 and higher in 1960 - than for cast ingots. This discrepancy is normally due to the fact that complete synchronization in the rate of expansion of the two items cannot always be achieved, although under present circumstances it is also attributable in part to the structure of the steel industry in Argentina. Because the production of rolled steel in Argentina is much higher than that of steel castings - the difference being made up by imports of billets -, adverse factors affecting the general trend of the Argentine steel industry also produce an impact on the respective Latin American totals in one way or another. In this particular case, the protracted labour dispute which occurred in Argentina in 1959 affected the growth rate of Latin American steel production more seriously in the rolled steel sector than in that of crude steel.

Growth rates of nearly 16 and 13.5 per cent in 1959 and 1960 respectively, both figures much higher than in previous years, 2/ were registered in the production of pig iron. This improvement in the growth rate of first castings may be attributed chiefly to the increases achieved in Brazil and Mexico during those two years, the resumption of normal operations at the Chimbote plant in Peru during 1959, and the entry into operation of the blast furnace at San Nicolás and the expansion of the military plant at Zapla in Argentina in 1960. While this first stage of manufacture is still lacking in some countries which have steel making and rolling mills, some changes are likely to occur soon. The new processes for reducing iron - which require less capital investment than blast furnaces - have paved the way for the establishment of integrated plants adapted to the size of the domestic market in countries such as Cuba where steel making activities have been limited so far to the two final stages. 3/

2/ The annual cumulative growth rate for the three-year period 1956-58 was only 6.5 per cent.

3/ Ecuador, a country which has no industry of this type whatsoever, is also considering this possibility.

/Table 1

Table 1

LATIN AMERICA: PRODUCTION OF PIG IRON, STEEL INGOTS AND FINISHED STEEL, 1950, 1955, 1959 AND 1960

(Thousands of tons)

Country	Pig iron a/				Steel ingots c/				Finished steel			
	1950	1955	1959	1960b/	1950	1955	1959	1960b/	1950	1955	1959	1960b/
Argentina	18	35	32	151	130	218	214	258	268	667	776	884
Brazil	729	1 069	1 560b/	1 690	769	1 162	1 866	2 037	623	982	1 519b/	1 664
Chile	112	256	290	280	68	310	441	465	57b/	236	307	318
Colombia	-	125	126	152	4b/	27	126	159	3b/	43	91b/	120
Cuba	-	-	-	-	-	-	30b/	70	-	15b/	21b/	50
Mexico	227	328	631	752	391	725	1 265	1 426	383	586	1 050	1 198
Peru	-	-	39	39	-	-	52	60	-	-	40	43
Uruguay	-	-	-	-	10b/	10b/	14b/	13	28b/	32	45b/	43
Venezuela	-	-	-	-	5b/	22	81b/	78	4b/	20	69	66
Others d/	-	-	-	-	-	-	10b/	10	-	-	7b/	6
Total Latin America	1 086	1 813	2 697	3 064	1 377	2 534	4 099	4 576	1 366	2 591	3 925	4 392
Growth rates compared with previous year			15.9	13.6			12.8	11.6			8.3	11.9
Annual cumulative growth rates for 1950-55 and 1955-60 respectively		10.8		11.1		13.0		12.5		13.7		11.1

Source: Official and international statistics, technical publications and direct information.

a/ For Mexico the pig iron figures for 1959 and 1960 include all first casting iron (including sponge iron).

b/ Provisional, based on data for most of the year or on the main capacity of the plants.

c/ Including crude steel cast in smaller shapes (i.e. billets) for some semi-integrated plants.

d/ El Salvador, Guatemala and Panama.

The gap between output and demand[4/] which is widening, at least temporarily, in spite of these important advances, have made the steel industry a critical element in the economic development of Latin America. This drawback, which can only have unfavourable effects on future prospects for balanced industrialization, is even more serious if examined in the light of the limited capacity to import prevalent in most of Latin America - particularly in Argentina and Brazil - which prevents the shortage from being entirely made up by purchases abroad. The upsurge in the demand for steel products is closely linked with the characteristic dynamism of certain manufacturing sectors in the present phase of Latin American development, particularly the new metal transforming industries. The heavier demand can also be attibuted to the steel requirements of other branches of economic activity such as plant construction, engineering and replacement of transport equipment. The extension and relaying of oil and gas pipelines is another major source of demand, particularly in Argentina and Venezuela.

In the circumstances, virtually every steel producing country in Latin America has been compelled to prepare projects for the large-scale expansion of its basic iron and steel industries and to devote considerable effort to carrying them out. On the basis of projects already under way or in an advanced stage of preparation, the production of crude steel is estimated to amount to over 10 million tons by 1965, which implies an annual cumulative growth rate of between 16 and 17 per cent in the intervening years, compared with 13 per cent in the period 1950-60.

As impressive as this increase may be, it cannot be considered adequate. The findings of a recent survey undertaken by the ECLA secretariat [5/] show that demand within the next few years will rise at such a rate as to create

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4/ Although Latin American production of steel ingots rose from 1.4 million tons in 1950 to 3.6 million in 1958, steel imports - in terms of the crude steel equivalent by weight of steel at various stages of processing - climbed during the same period from 2.8 million to nearly 3.8 million tons.

5/ See "Rolled iron and steel products in Latin America: prospective production and demand", Economic Bulletin for Latin America, Vol. IV, No. 2, pp.1 et seq.

/a deficit

a deficit of some 4 or 5 million tons even in 1965, which is higher than the amount of steel imported in 1958.[6/] While Argentina and Venezuela will continue to have the largest adverse steel balance for several years, virtually every other country - including Brazil and Mexico - will have to import steel, although on a smaller scale.

Two obstacles impede an expansion in installed capacity. One is the time required to begin operations, always long in the steel industry but excessively so at times, particularly in countries setting up large integrated plants for the first time.[7/] The other is the fact that, while the major problems relating to the external and internal financing of the large-scale investment required have been solved in principle, unexpected difficulties arise in practice, very often of an internal nature, when the time comes to earmark the necessary funds in national budgets.

In Argentina a radical change in the volume and structure of steel production is under way now that the San Nicolás plant, whose blast furnace began functioning in the middle of 1960, has started operations. In 1961, it is hoped that integrated production will begin, including steel casting, rolling and tin-plating, so that the plant can start to turn out rolled products. Moreover, the extension and integration of the Zapla plant[8/] is due to be completed by 1962. These two projects will raise Argentina's steel making capacity to about 1 million tons, compared with the present figure of 250,000 tons, and its rolling capacity to over 2 million tons, as against the present rate of about 950,000 tons.[9/] Total steel-casting capacity may exceed 1.5 million tons when the second stage of the San Nicolás plant has been completed or when the other important projects now under

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6/ The volume of steel products for the two years is calculated in terms of the crude steel equivalent.

7/ This is confirmed by the recent experience of Argentina, Colombia, Peru and Venezuela.

8/ Construction of the two new charcoal blast furnaces and the new power station were completed at this plant in 1959.

9/ Moreover, equipment for rolling a million tons of billets from blooms has been purchased for San Nicolás.

consideration - the Sierra Grande steel centre or a second plant on the Paraná River - have been carried out. Yet even then Argentina will still require large-scale imports of crude and rolled steel.

In Brazil, the State-owned Volta Redonda plant and the seven other integrated plants - many of them smaller - are either undergoing or are about to undergo major expansion. 10/ New projects include the construction, now under way, of the great Cosipa plant in São Paulo and a Brazilian-Japanese concern in Minas Gerais, which will mainly supply steel to the motor vehicle and shipbuilding industries respectively. While these expansion programmes are forging ahead, plans are being formulated for co-operation among various plants which, at least temporarily, will have a surplus capacity in one stage or another of production and will be complementary (Volta Redonda - Cosipa). In view of the present trend of most iron and steel processing plants, substantial additional capacity for the production of non-current and quality steels is being developed. By the end of 1962, or a little later, completion of the major projects now under way will raise Brazil's steel making capacity to over 3.5 million tons.

In Venezuela, the complicated legal and financial problems which have delayed completion of the proposed major integrated plant at the confluence of the Orinoco and Caroní rivers have recently been solved. A rapid solution to the remaining technical problems bearing on fuel and transport and to the training of staff is now being sought. Integrated operations are expected to begin in 1962, but the manufacture of seamless tubes from imported semi-finished products will probably start earlier. It should be pointed out that about half of the production capacity of 750,000 tons of crude steel originally planned for the first stage of the plant 11/ will be used to manufacture tubing. A substantial increase is anticipated in the not too distant future.

10/ In the past two years, the State-owned enterprise has put into operation several coking and steel making plants. With the inauguration of the eighth steel furnace, capacity thus came close to 1.3 million tons in 1960.

11/ According to recent data, the original plan has been changed to provide for a new initial capacity of 1 million tons.

/Mexico is

Mexico is one of the Latin American countries in which the consumption of rolled steel has increased most rapidly. For a number of years it had to import large quantities of steel - from one-fifth to one-third of its requirements - in spite of a steady expansion in its steel output.[12/] During the period under review, the expansion plans of the three integrated plants, particularly the State-owned Monclova plant, were in an advanced stage of preparation or completion.[13/] These and a few minor expansion plans for semi-integrated plants - which make an important contribution to total steel production - will raise Mexico's capacity to over 2 million tons by the end of 1963. Moreover, steps are now being taken to carry out the project for a new large integrated centre on the Pacific coast with a capacity of 500,000 tons.[14/]

In Chile, the second stage of the Huachipato programme has been completed with the installation of a continuous cold mill for flat sheet. This will both reduce unit production costs and improve quality. Lower costs and higher quality are particularly important for Chile, which is the only exporter of relatively large quantitites of steel products. The next expansion stage [15/] will boost capacity to 650,000 tons and is based on the expectation of large-scale sales abroad.

With regard to the relatively smaller integrated plants in other countries, mention should be made of the Paz del Río plant in Colombia, which is now expanding its facilities mainly with a view to manufacturing flat products. A project for greater expansion in the near future is also being prepared. Peru is considering the possibility of expanding the electro-metallurgical plant at Chimbote.

12/ Some cost factors were also involved, arising from transport difficulties in some parts of the country and from competition by United States products in some branches of the steel industry, particularly the supply of cheap scrap which can be used instead of iron reduced locally.

13/ In 1960, Altos Hornos completed the first stage of its expansion programme with a target capacity of 600,000 tons, and began the second stage which is intended to raise capacity to 1 million tons.

14/ The draft project for another large plant is now being studied.

15/ Construction of a second blast furnace and related equipment, and additional steel-making facilities.

/Progress has

Progress has also been made with certain schemes to set up semi-integrated plants, which are easier to build. Projects relating to plants of this type are already being carried out in Argentina, Brazil, Mexico and Venezuela. In Cuba, plants for steel making and rolling, with a capacity of about 100,000 tons, have recently started operations. Work is also under way in Venezuela to set up additional facilities for raising the capacity of semi-integrated plants. Lastly, mention should be made of the fact that in Mexico the first Latin American plant for the manufacture of sponge iron (reduction of certain iron ores to "synthetic scrap") has begun operations and that Brazil is preparing to introduce the same process.

(b) Chemical industries

The chemical industries are playing an increasingly important role in Latin American economic development, particularly because they supply an ever larger quantity and variety of intermediate products used in other industries, the chemical industry itself, agriculture and transport.

Nevertheless, however obvious the advances recorded for various chemical items (for example, in the petrochemical industry in Mexico and the manufacture of pharmaceuticals in a number of countries), and however great their recent development and their impetus, the gap between present requirements and achievements thus far is still considerable. Latin American imports of chemical products, which averaged some 750 million dollars during the years 1956-58, are a considerable burden on the balance of payments of a number of countries, and the fact that these imports are not greater still is largely due to restrictions on foreign trade or to high prices resulting from various import charges. Furthermore, the steady economic and technological progress in Latin America means that a further large-scale and rapid expansion of demand is to be expected in the near future.

In striking a balance of recent developments, two other considerations must be borne in mind: (a) that the principal raw materials, especially those produced by the exploitation and refining of petroleum and natural gas, are available in abundance in most of Latin America, generally at low cost; and (b) that the unit costs of chemical industries - especially those of the heavy or intermediate type - are usually highly sensitive to the scale of production, and also to the possibility of selling their

/co-products and

co-products and by-products on a reasonably sure market.[16]

One of the most important developments recorded in 1959 and 1960 was the increased rapidity with which basic petrochemical industries were established in Brazil and Mexico, and the progress in plans for similar projects in Argentina. Venezuela has been striving to solve the technological and economic problems of the Morón group. A recent feature in this connection has been, in many cases, the guiding role that the State has assumed, directly or indirectly, in the development of these resources. This trend, which is very marked in Brazil, Mexico and Venezuela, is evidenced not only by Government financing of the necessary construction work, but also in some cases by a number of restrictive legislative provisions. However, whereas the Morón petrochemical group has to be entirely run by the State, in the other two countries referred to private capital is encouraged to participate in the subsequent stages of the processing of many of the basic petrochemical products produced by the State enterprise. In Argentina, in line with the new petroleum policy, the guiding hand of the State is active mainly in the authorization of the relevant private investments.

The products for which present or projected demand provides the main stimulus to the development of the petrochemical industries are fertilizers, synthetic resins for plastics,[17] synthetic rubber and detergents, although such products as explosives, insecticides and fungicides, and paints are assuming growing importance.

In Brazil, continuing the development begun a few years ago, the operations of the nitrogenous fertilizer plant linked with the Cubatão petroleum refinery reached the normal level of operations in 1959 and 1960. In addition, construction was begun on the synthetic rubber plant attached to the large refinery being erected near Río de Janeiro. There are a number of other projects still in the planning stage.

16/ In most Latin American countries, this problem of markets can be partly solved by progressive integration of the chemical industry at the national or regional level.

17/ Between 1955 and 1959, the volume of production of synthetic resins for plastics in Brazil rose from 15,000 to 49,000 tons, and during the period 1957-59 the annual cumulative rate of increase was even maintained at 26 per cent.

/In Mexico

In Mexico, after some years of activity on a rather specific and limited scale, a broader programme has been drawn up for the petrochemical industry. Before the end of 1959, the first plant for the production of dodecylbenzene (a detergent base) began operating; two other plants were established for the production of anhydrous ammonia, and another for the extraction of aromatics. At the beginning of 1960, construction was begun on a polyethylene plant. There are also plans for other plants or additonal installations for the processing of detergents, butadiene, styrene, synthetic rubber and tetraethyl lead.

In Argentina plans for the petrochemical industry mainly concern the manufacture of synthetic rubber, carbon black, nitrogenous fertilizers and synthetic resins (polyethylene). Other new lines of production include the production of plastic resins from urea and, more especially, the production of polyvinyl chloride from calcium carbide, and of synthetic abrasives and plasticizers. 18/

Latin American projects for the manufacture of synthetic rubber that are either being carried out or are at an advanced stage of preparation together represent the creation of a total capacity of some 145,000 tons, of which approximately 40,000 are to be provided by Argentina, 65,000 by Brazil and 40,000 by Mexico. It is estimated that, once these projects are in operation, their output will approximate the amount required to meet the needs of the countries concerned. However, it should be remembered that Latin American requirements for this product increase much more rapidly than average world requirements.

In Peru, a plant for the production of explosives and nitrogenous fertilizers began operating in 1959; in Colombia, on the other hand, a similar project has been subject to a number of delays. 19/ In Venezuela, operations at the nitrogenous fertilizer plant are at present of an experimental nature.

It is particularly interesting to note that the chemical industries may be extended to Central America, where there are a number of projects, especially

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18/ Mainly plasticizers made from phthalic anhydride of carbo-chemical origin.

19/ In addition, negotiations have been concluded in Colombia for obtaining the funds required to complete the Barrancabermeja plant.

with respect to the production of fertilizers, that seem to offer good prospects of materializing shortly.

In Brazil, the outlook is promising for the development and expansion of the production of phosphate fertilizers; in other countries similar plans are being studied or prepared.

There has been little reduction in Latin America's deficit of sodium alkalis, despite recent marked increases in production. Towards the end of 1960, the Solvay plant in Brazil was completed, with a capacity of 100,000 tons of sodium carbonate. An investment plant has recently been approved for a soda plant in the south of Argentina. The Galerazamba project in Colombia is still at the study stage. There has been considerable expansion in electrolytic soda production capacity in Brazil, Colombia, Mexico and Peru; steps in the same direction have been taken in Argentina, but there a lack of sufficient power has prevented full use of the equipment.

(c) Manufacture of paper and pulp

In the Latin American paper industry there has been a continuation of the significant expansion begun some five years ago, particularly in Brazil, Chile, Colombia, Cuba, Mexico and Venezuela. The pace of this steady expansion is illustrated by the fact that in 1955-60 there was an annual cumulative growth rate of 16 per cent in the production of various paper and board pulps, including mechanical, semi-chemical and chemical pulps. The corresponding figure for the manufacture of paper and paperboard was lower - 9.5 per cent -, but still fairly high. The rates of growth for the last five years, for both industries, compare favourably with the rates for 1950-55, which were 6 and 6.5 per cent respectively (see table 2).

Total figures for pulp output for 1959 and 1960, considered separately, confirm the rising production trend, as the respective rates of increase were 17 and 20 per cent. There was also a fairly steady increase in the production of paper and paperboard, with growth rates of 7 and 9.5 per cent respectively for 1959 and 1960; these figures are much the same as those for the previous five years.

Total consumption of paper and board increased during 1955-59 somewhat more slowly than production, but this difference was not enough to produce

Table 2

LATIN AMERICA: PRODUCTION OF PULP, PAPER AND BOARD, 1950, 1955, 1959 AND 1960

(Thousands of tons)

Country	Paper and board pulps				Paper and board (total)				Newsprint			
	1950	1955	1959	1960a/	1950	1955	1959	1960a/	1950	1955	1959	1960 a/
Argentina	38.0	55.9	86.2	90.0	211.0	283.6	346.3	360.0	2.8	21.6	12.0	6.0
Bolivia	-	-	-	-	0.5	0.8a/	0.9a/	0.9	-	-	-	-
Brazil	150.8	187.5	275.5	290.0	306.2	426.4	549.9	600.0	37.9	39.5	67.2	68.0
Chile	19.9	20.1	60.2	115.0	44.8	67.3	105.3	120.0	11.0	11.5	48.6	60.0
Colombia	0.8	1.3	2.8	3.0	8.2	29.2	48.7	53.0	-	-	-	-
Cuba	-	-	10.0	25.0	35.8	43.6	65.3	87.0	-	-	8.0	15.0
Ecuador	-	-	-	-	0.6	0.6a/	0.8a/	0.8	-	-	-	-
El Salvador	-	-	-	-	0.3	0.3a/	0.5a/	0.5	-	-	-	-
Guatemala	-	-	-	-	0.3	0.3a/	0.6a/	4.0	-	-	-	-
Mexico	63.0	93.9	198.5	239.0	180.0	228.6	349.9	380.0	-	-	14.0	20.0
Paraguay	-	-	-	-	-	0.4a/	0.5a/	0.5	-	-	-	-
Perú	5.0	13.0	25.8	30.0	14.9	26.7	45.1	50.0	-	-	-	-
Uruguay	3.0	5.3	4.8	5.0	24.1	30.0	35.6	36.0	-	-	-	-
Venezuela	-	-	-	-	8.4	12.2	45.0	55.0	-	-	-	-
Total Latin America	280.5	377.0	663.8	797.0	835.1	1 150.0	1 594.4	1 747.7	51.7	72.6	149.8	169.0
Growth rates compared with previous year			17.1	20.0			7.1	9.6			13.0	12.9
Annual cumulative growth rates for 1950-55 and 1955-60 respectively		6.1		16.2		6.6		8.7		7.0		18.4

Sources: Data obtained for producers or their trade associations and from Government bodies; the figures for some countries with a small volume of production are estimates.

a/ Provisional. (All the figures for 1960 are to a certain extent estimates.).

/any considerable

any considerable increase in self-sufficiency. Latin America now produces two-thirds of the paper of all types that it consumes: in 1959, the total domestic output of paper and board amounted to 1.6 million tons, while imports were 800,000 tons.[20/]

The structural changes in the industry were more significant. Pulp output increased more rapidly than paper production, as evidenced by the coefficient of the production of pulp to paper; in 1950 this was 0.30 and, in 1955, 0.32, whereas in 1960 it was 0.45.

Given the present operating conditions of the Latin American paper industry, it can be assumed that a coefficient of about 0.65 would amount to self-sufficiency in pulp as the remaining requirements could be supplied by waste paper. But although at present only something over a third of the consumption of pulp is supplied by imports, it should be remembered that, if Latin America's total consumption of paper and board came from domestic production, the present level of pulp production would supply barely half the required amount.

The outlook appears generally promising for a steady expansion with increasing substitution, and it has been ascertained that the woods and fields in much of Latin America could provide enough raw materials to constitute a constant source of supply if they are properly exploited.[21/] Programmes for the development of this industry usually provide for the establishment of integrated plants or for the gradual supplementing of existing paper plants with new pulp plants.

The subject of newsprint production deserves separate treatment. This is the most dynamic activity in the finished products category and the one with the highest percentage growth rates during the period under review. Nevertheless, this type of paper is manufactured in only five Latin American countries, and total output still represents less than a quarter of Latin American consumption (23 per cent in 1959). This shortage, which is felt all the more because of the rapid growth of demand, is due to the difficulty of

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20/ As there were supply shortages in some countries, actual requirements can be regarded as somewhat higher than the apparent level of consumption.

21/ This conclusion does not apply, except subject to certain reservations, to the raw materials required to produce newsprint.

using non-coniferous raw materials for the competitive production of newsprint.

Brazil is one of the countries that has enough suitable pulp wood to meet its newsprint requirements; it is a heavy consumer and up to now has had a large deficit to make up. Present plants are to raise capacity to 150,000 tons within the next three years or so, which would be tantamount to more than doubling present production. The most significant recent development in the Brazilian paper industry is the steady growth in the production of eucalyptus pulp, and the beginning of production of pulp from non-conventional fibres (bamboo, sisal, etc.). It should be added that the industry is gradually replacing its obsolete equipment with modern machinery.

The greatest advance in the newsprint field has been made in Chile, which has excellent artificial forests and is planning to exploit them on an increasing scale. The Bío-Bío plant, which completed its third year of operation in 1960, has not only made the country self-sufficient, but has made possible a steadily increasing volume of exports. (Chile is the only Latin American country that exports this item.) The expansion of the capacity of this plant to 60,000 tons was completed early in 1960, and fortunately the equipment was not damaged in the earthquake of May 1960. In addition, a sulphate pulp plant with a capacity of 70,000 tons began production in 1959; this is the first Latin American factory to produce this item for export, and in 1960 it had already sold considerable quantities abroad. There are plans to double the capacity of this plant.

In Cuba, bagasse was increasingly used to make pulp; this activity, begun in 1958, is intended mainly for the production of newsprint, which has increased considerably.

In 1958, Mexico also became a producer of newsprint, with the installation of the Tuxtepec plant, which reached full use of its installed capacity in 1960, and in the same year a start was made on its first expansion.

In Colombia, work progressed on the building of a large new integrated plant, which is expected to begin operating towards the middle of 1961.

Lastly, it should be mentioned that a small-scale plant has begun operating in Guatemala, and that in Honduras there are plans to establish a large industry whose output will be mainly for export.

/(d) Cement

(d) Cement

Cement production (see table 3), which up to 1956 had shown a high growth rate,[22] slowed down markedly in the three-year period 1957-59: in 1957, the rate fell to 8 per cent; in 1958 to under 4 per cent; and in 1959 to under 3 per cent. Had it not been for expanded production in Colombia, Mexico and Venezuela, and for the return in Chile to the 1955 level of production - after a three-year slump - output in Latin America as a whole would have fallen in 1959, since it dropped in Argentina, Cuba, the Dominican Republic, Peru and Uruguay, and remained almost static in Brazil.

In 1960, there was a growth rate of 6 per cent compared with the previous year in the region's total production, indicating some general recovery in demand.

In a number of Latin American countries the industry is continuing to expand, or there are plans for its expansion; these countries include Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and also Peru, which in the past five years has virtually doubled its capacity, although recently it has been unable to use a large part of this increased capacity.

2. Metal transforming industries

(a) Metal transforming industries in general, household appliances and miscellaneous machinery[23]

Expansion and diversification of the metal transforming industries were not confined to Argentina, Brazil and Mexico, where there was a spectacular expansion - which also spread to the development of highly elaborate processing equipment and even to some heavy machinery -, but were evident, in addition, in Chile, Colombia, Cuba, Peru, Uruguay and Venezuela. Moreover, the forthcoming entry into operation of new steel plants or the expansion of existing plants is likely to give a new impetus to industries based on steel manufacturing.

22/ For a number of years growth rates fluctuated in the region of 10 per cent.

23/ Excluding electrical machinery.

/Table 3

Table 3

LATIN AMERICA: CEMENT PRODUCTION IN 1950, 1955, 1959 AND 1960

(Thousands of tons)

Country	1950	1955	1959	1960 a/
Argentina	1 558	1 687	2 370	2 590
Bolivia	38	38	29	35
Brazil	1 386	2 736	3 841	4 222
Central America	59	167	257	278
Chile	513	804	807	860
Colombia	580	1 047	1 348	1 425
Cuba	316	463	678	644
Dominican Republic	73	240	193	200
Ecuador	58	146	157	178
Mexico	1 388	2 086	2 678	3 058
Panama	56	75a/	90a/	97
Paraguay	-	12	13	14
Peru	331	545	580	565
Uruguay	300	292	409	402
Venezuela	501	1 282	1 872	1 640
Total, Latin America	7 157	11 620	15 292	16 208
Growth rates compared with previous year			2.8	6.0
Annual cumulative growth rates for 1950-55 and 1955-60 respectively		10.2		6.9

Sources: Official and international statistics, technical publications and other specialized periodicals, and direct information.

a/ Provisional.

Household appliances - refrigerators and electric washing machines - are manufactured from domestic components - with the occasional addition of imported parts - in Argentina, Brazil, Chile, Colombia, Mexico and Uruguay, and some mechanical equipment for offices (typewriters, etc.) is also made in the first three. Likewise, assembly or production activities using a larger proportion of imported parts are also being carried out, or are about to start, in the countries listed and in Peru.

With respect to miscellaneous non-electric industrial machinery, steady progress has been made in Argentina, Brazil and Mexico in the production of machine-tools and complete or semi-complete equipment for certain types of industry. As encouraging results have been obtained in the production of certain equipment for the textile, paper and construction industries, plants have been installed in the three countries for the manufacture of some important elements for petroleum extraction and refining.

One outstanding event was the setting up of heavy industry in Brazil - together with its development in Argentina - for the production of high-capacity industrial equipment in the form of compressors, pumps, boilers, etc. It will also be able to provide heavy electrical equipment for the energy sector, as well as important parts - travelling cranes, electric furnaces, etc. - for the installation of iron and steel works and the non-ferrous metal plants.

(b) Manufacture of electrical equipment and stationary engines

The progress achieved in this field is confined for the time being to the more industrialized countries of Latin America. The rapid advances made recently by Brazil in the production of increasingly powerful units of heavy electrical equipment - including electric motors - is worthy of mention. This country, which before 1956 had virtually not manufactured any big generators, produced units of 4,200 kVA in 1958 and of 34,000 kVA in 1959. The largest transformers it had manufactured prior to 1956 were of 4,000 kVA (for a tension of 88 kV). It is now turning out units of 50,000 kVA and hopes to go up to 58,000 kVA. Before 1955, the big electric motors produced there had a rating of not more than 200 H.P., whereas three years later units of 500 H.P. were possible and by 1959 mass assembly lines had been set up for units of up to 800 H.P. (some of 1,250 H.P also being produced). Over 300,000 electric motors for industry are produced yearly,

/apart from

apart from fractional units under 1 H.P., of which the output is about a million. A start was recently made on the manufacture of steam turbines of 1,000 H.P., and there are facilities for making hydraulic turbines of up to 50,000 H.P. Moreover, Brazil's largest heavy engineering works is building new installations to enable it to manufacture, as from 1961, equipment for hydraulic power stations of any size and capacity.

Argentina has several plants producing high-power electric motors of up to 900 H.P., variable-speed units - such as the Ward Leonard - of up to 250 H.P., three-phase generators of up to 1,400 kVA, and rotary convertors of up to 300 H.P. with their control panels. As regards low- and medium-power electric motors (up to 10 H.P.), the total produced in 1956 was 220,000 H.P., 35 per cent of which consisted of fractional units.

The production of non-current steels has boosted the manufacture of electrical equipment in Chile. Latterly transformers of up to 5,000 kVA have been assembled. The production of electric motors consists largely of fractional units, in accordance with the trend of demand.

In Mexico some big and numerous small enterprises produce a variety of electrical equipment. Transformers rating up to 1,500 kVA are made, together with other heavy items, including motors. With regard to electrical equipment for industry, the output of transformers rose from 43,000 units in 1955 to 104,000 in 1958. The manufacture of switches increased during the same period from 68,000 to 151,000 and that of electric motors from 23,000 to 51,000.

As regards the manufacture of stationary diesel and petrol engines, the level reached by Argentine industry is outstanding. It has some 30 plants devoted to the manufacture of stationary petrol engines of up to 10 H.P. and diesel engines of up to 150 H.P. (though the bulk of its production does not exceed 30 H.P.). A plant for diesel engines of up to 1,500 H.P. was recently erected. This plant proposes to manufacture several types with a rating of up to 2,050 H.P. and of rapid low-power engines. Production will aim primarily at covering railway, shipbuilding and rural electrification requirements.

In Brazil, this industry is still virtually at the stage of producing low-power units. Latterly it has begun to manufacture diesel engines ranging

/from 5

from 5 to 44 H.P., for which about half the parts are imported. Current plans for the manufacture of heavy diesel engines are mainly intended to cover shipbuilding requirements.

The production of prime movers in Mexico is limited to units in the small and fractional categories, although assembly facilities for diesel engines of 175 H.P. are also being developed. Steps have been taken to encourage this industry.

Lastly, it should be noted that the use of national components and raw materials in the manufacture of electrical equipment and prime movers is generally fairly high, except in Mexico. In Argentina and Chile, the proportion of imported parts - chiefly ball-bearings, some non-ferrous metals and alloys - rarely exceeds 20 per cent of the sales value, but is often less, even considerably so. In Brazil, the percentage of foreign parts was higher until recently, but domestic production of silicon steel sheet is gradually reducing it.

(c) Motor vehicle industry

In Argentina and Brazil, the motor vehicle industry is developing and is being progressively and thoroughly integrated at the national level, since an increasing proportion of locally-manufactured parts is being used in the assembly. The process of transformation in the manufacturing structure of both countries has been speeded up by the development of this industry. In the near future, the evolution of this industry is likely to involve a certain degree of integration in Mexico as well, where the assembly plants are using mainly imported parts and few local components. 24/ Assembly is also being carried on in Venezuela, and to a lesser extent in Chile, and there are assembly plants that are unfinished or not yet in operation in Colombia and Cuba.

In order to illustrate the levels of production reached by these industries in terms of finished vehicles, all available data on the number of vehicles produced in Latin America since 1955 are given in table 4, a distinction being made between those which may be considered as "of national manufacture" because of the incorporation of a large proportion of domestic

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24/ The Mexican components used in this branch recently fluctuated between 8 and 22 per cent of the total value.

/Table 4

Table 4

LATIN AMERICA: MANUFACTURE AND ASSEMBLY OF MOTOR VEHICLES, 1955-60 a/

(Thousands of units)

Country	1950	1955	1956	1957	1958	1959	1960b/
			A. "National" manufacture c/				
Argentina	-	6.7	5.2	15.3	26.6	29.7	40.0
Brazil	-	4.6	6.6	29.7	61.1	96.2	130.0
Latin America	-	11.3	11.8	45.0	87.7	125.9	170.0
			B. Assembly of vehicles imported in unassembled or semi-assembled form d/				
Argentina	...	3.9	2.6	15.4	5.8	3.5 b/	...
Brazil	...	...	...	1.0	0.2	-	-
Mexico	21.6	31.7	41.5	40.7	39.0	50.8	...
Venezuela	2.9	18.1	13.8	14.8	13.4	14.9	12.0
Latin America	...	...	...	71.9	58.4	69.2	-

Sources: Official statistics, technical publications and direct information.

a/ Not including scooters, motor-bicycles and similar vehicles. In Argentina -the chief producer of this kind of vehicle- the total number of motor-bicycles and scooters manufactured in 1959 was 79 000, more than ten times as many as in 1955.

b/ Provisional estimates.

c/ For the definition, see footnote 25.

d/ Not including data for Chile, which, do not, however, represent large amounts (nor data for Uruguay, which apart from being very limited, refer only to the final stages of assembly or to the fitting of coachwork).

parts, and those assembled from imported items.[25]

Three quarters of the approximate total of 170,000 vehicles manufactured in Latin America in 1959 and 1960 was produced by Brazil, whose motor vehicle industry has already entered upon the fifth year of its development programme. Its production statisitcs show that notable progress has been made each year although the annual totals are well behind the original estimates. In 1959, output represented 83 per cent and in 1960 less than 66 per cent of the projections. The differences derive from certain changes in the plans of enterprises, delays in installing plant and the limits to effective external demand.[26]

In 1959, the Argentine motor vehicle industry failed to reach its targets. Most of the vehicles manufactured came from one enterprise which has been in operation for over four years and whose programme was considerably affected by the labour disputes that took place during the period. The manufacuring totals for 1960 show that a more active part was played by other enterprises whose investment and production programmes were approved by the authorities in the last two years. At the present time, these enterprises are concentrating on building, installing or adding to their plants and on organizing their collaboration with sub-contractors.

Although the number of units manufactured and the annual increments show that the new motor vehicle industry is becoming increasingly important as a domestic supplier of local requirements (in Brazil, transport has already improved noticeably thanks to the industry's contribution), the figures

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25/ An endeavour has been made in table 4 and in the present commentaries to adopt a uniform standard of classification for dividing the vehicles produced in Latin America into two groups: "national manufacture" and "assembled from imported unassembled or semi-assembled parts". The first group consists of vehicles, of whose weight at least one third consists of domestically-manufactured parts, provided that the relevant production programme contemplates a gradual increase in that proportion.

26/ One factor limiting internal demand is the still unresolved problem of purchasing credits.

presented do not give a complete picture of the magnitude of its development in both countries.

In the first place, the data show the development of manufacture in terms of finished units only, and give no indication of the progressive replacement of imported components by those produced in the country, a process in which Brazil - and even Argentina - have made great strides lately. As regards Brazilian results, the share of domestic parts as an average of the different kinds of vehicle, and as an average for 1959 (when their contribution became larger) amounted, on a rough estimate, to nearly 70 per cent and more than 80 per cent in 1960.[27/] As regards Argentina, the use of locally-manufactured components by the chief producer enterprise exceeded 70 per cent in 1959 and expanded to over 80 per cent in 1960. The proportion was also fairly high in two other smaller plants.

Moreover, in order to appreciate the scope of the progress made by this industry, the substantial contributions of foreign capital and the preparatory and construction studies undertaken should also be taken into account. Special attention should be paid to the simultaneous development of ancillary industries which, while meeting the requirements of motor vehicle factories, can supply other engineering branches with important parts. In Brazil, the sector supplying parts comprises more than 1,200 factories, of which about 100 are big plants. In Argentina, it is developing steadily and diversifying production to a marked and increasing extent.

In the course of development, this sector of ancillary industry had to make radical changes in its production systems and invest large amounts in

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27/ It should be remembered that Brazilian regulations governing the gradual "nationalization" of parts state their requirements only in terms of percentages of the weight of the finished vehicle, but do not stipulate the proportions of the vehicle's total value to be constituted by these parts, or specify which are to be manufactured in Brazil. Nonetheless, the progressive replacement of parts, expressed in terms of weight, keeps in fairly close line with the growing share of national components in the total value of the vehicle. Thus, according to secretariat estimates, the proportion of national parts prescribed for mid-1960 in terms of weight - 90 per cent for some kinds of vehicles and 95 per cent for others - would average more than 80 per cent of the total value (the imported parts being calculated at their c.i.f. value). This relationship - and its relative constancy from approximately 40 per cent onwards - is associated with the fact that the consecutive substitution of different groups of components usually follows a logical order (with, of course, certain differences as among the various types of vehicle). In Argentina, the scales for the gradual replacement of parts have been laid down in terms of value.

new machinery, tools and measuring and testing instruments in order to comply with the standards of quality and quantity imposed by the mass production of vehicles. For the technical aspects of production methods and installations, it often had to drawn upon the experience of specialized firms. In this respect, the assembly enterprises acted in an advisory capacity on several occasions. Likewise, they brought interested parties into touch with big firms in the field, thereby enabling the domestic enterprises to acquire numerous patents.

Another salient factor emerges from the development of ancillary industry. In Brazil and Argentina, subsidiaries of several international firms have been established and have launched new lines of production in more than one case. It is hoped that, in the near future, some gaps in the provision of supplies to the assembly plants will be filled; for instance, that they will be given a wider range of forged and cast parts. In Brazil, the manufacture of ball-bearings on a large scale is imminent.

Although the rapid development of the motor vehicle sector has naturally given a powerful impetus to the industries producing the relevant basic inputs, their expansion has failed to keep pace with the rate of growth of demand.

The most pronounced bottleneck is clearly in the manufacture of iron and steel products, but the increasing shortage of raw rubber is also posing serious problems. Both Argentina and Brazil are currently preparing to manufacture synthetic rubber, and Brazil is also trying to enlarge its rubber plantations.

Another delicate problem is the increasing need for fuels, particularly in Brazil. Although large increases in petroleum output have been achieved recently, Brazil continues to have to import considerable quantities of fuel and its internal market reflects the pressure of growing demand. The position in Argentina is less critical, but even if that country manages to become an exporter of petroleum, the sharp increase in internal consumption will reduce potential exchange revenue.

The uneven growth of the productive resources which are required also raises problems which may slow down the rate of development of the motor vehicle industry. There are still difficulties as regards the supply of skilled labour, despite the partial success which Brazil in particular has

/had in

had in overcoming its initial problems in that respect and the efforts which are still being made towards that end.[28] Another difficulty is the scarcity of foreign currency necessary for importing the parts not produced in the country and these inevitably represent large sums of money in the early stages. It should not, however, be forgotten that the main purpose in setting up this branch of industry was to meet the acute need for automotive transport without having to pay out enormous sums in foreign currency. If it is supposed that the same number of vehicles as is manufactured in the country would otherwise have been imported, the resulting balance is unquestionably favourable. Again, it must be realized that the need to earmark a large amount of foreign exchange every year for imported spare parts to keep the new industry in operation is a further element reducing import flexibility, particularly during the initial stages of the programme.[29]

28/ Towards the end of 1959, the total number of workers in the Brazilian automobile industry and its subsidiaries had already reached a figure of some 70,000, and, according to forecasts, this figure was expected to exceed 100,000 two years later. As to the training of labour, programmes in Government technical schools have been intensified and the enterprises themselves organize training programmes, for which purpose the recruitment of workers ante-dates the date of their full employment. Similarly, measures have been taken for the intensive training of technicians and administrators.

29/ In this respect, it is of interest to mention the results of an estimate made by the ECLA secretariat regarding the "gross savings in foreign currency" attributable to the development of the motor vehicle industry in Brazil. The value of output for the years 1957-60 would seem to amount to 1,200 million dollars in terms of the c.i.f. value of the imported equivalent and would appear to represent a gross savings in foreign currency of the order of 700 million dollars. This latter figure was obtained by deducting from the value of output the import costs of spare parts, payments of royalties and remittances of profits abroad (although not including indirect inputs: steel sheets, etc.). As from 1961 the manufacturing programme should represent an annual value of 540 million dollars and a gross savings in foreign currency of approximately 360 million. These estimates are based on the supposition that the original production plans as submitted by the firms concerned and approved by GEIA (Grupo Executivo da Industria automobilistica) were met. Those plans have, however, been partially modified mainly as a result of the withdrawal of a number of projects by the firms concerned and of certain new arrangements between them. For this reason the foregoing amounts may be considered as over-estimates. There is, however, reason to suppose that, by and large, the most important argument still holds good, namely, the relation between the number of motor vehicles produced and the amount of foreign exchanges involved.

/In addition

In addition, as the growth of motor transport must keep pace with the development of the road network and the extension of works for its maintenance, there is a clear need for large-scale public investment and, at the same or almost the same time, domestic private capital must make a serious effort to assist with the creation of a large new industry, however great the part played by foreign capital may be.

(d) Manufacture of tractors

The manufacture of tractors in some Latin American countries is being encouraged by the great need for mechanization in agriculture, by the notorious inadequacy of foreign currency reserves to achieve an overall solution through imports, and by the fact that industry in a number of Latin American countries is already sufficiently advanced technically for this branch of manufacture to be feasible. As in the motor vehicle industry, various foreign firms have for many years shown an interest in establishing subsidiaries in various Latin American countries; plans usually provide for the assembly of tractors locally with the gradual replacement of imported parts by nationally manufactured components.

So far, tractors have been manufactured only in Argentina, where the industry dates back to the middle of the fifties (see table 5). In 1959 and 1960, Argentine output reached 12,000 and 16,000 units respectively; the majority of these were assembled with a relatively large percentage (about 70 per cent) of domestically manufactured parts, the remainder being assembled with only a small percentage of national parts. In 1959, the Government issued further regulations governing the development of the industry. Under the new rules, interested firms must submit production plans to the competent authorities for at least five years ahead, stating the successive percentage use of locally produced materials; the minimum for this, as fixed by decree, is 40 per cent for the first year and 80 per cent for the fifth year. In order to encourage substitution even within those margins, the regulations lay down a sliding scale providing that during the successive years of the transition period a constantly decreasing proportion of imported parts may be used without payment of duty; the regulations also fix an upward sliding scale with regard to maximum output in relation to the proportion of nationally produced components used.

/Table 5

Table 5

LATIN AMERICA: OUTPUT OF TRACTORS IN ARGENTINA AND BRAZIL, 1954-60 AND ANTICIPATED OUTPUT IN 1961 a/

(Units)

Country	1954	1955	1956	1957	1958	1959	1960b/	Anticipated output in 1961
Argentina	355	3 926	8 195	8 522	9 569	11 938	16 200	(21 800)
Brazil	-	-	-	-	-	-	600	(15 000)
Total	355	3 926	8 195	8 522	9 569	11 938	16 800	(36 800)

Source: For Argentina, 1954-59, National Department of Statistics and Censuses, (Dirección Nacional de Estadística y Censos); for 1960 and Brazil, estimates based on official information and information supplied direct.

a/ In Mexico, smaller numbers were assembled in 1958 and at the beginning of 1959.
b/ Provisional.

/It is

It is hoped that total output in 1961 will increase to approximately 22,000 units and in 1962 to 25,000, a figure which, according to the most recent estimates, would just about meet normal domestic requirements and cover replacement needs and a gradual increase in the number of tractors in use. At the beginning of 1959, some 94,000 tractors were in use, about one third of which had been manufactured or assembled in Argentina. Some plans provide for the manufacture of certain parts for tractors in conjunction with those that will be used in other agricultural machinery and lorries, with a resulting reduction in unit costs.

In Brazil, the tractor industry is still in process of formation, the relevant regulations having been laid down at the beginning of 1960 with rules similar to those governing the manufacture of motor vehicles. The projects submitted by ten out of twenty firms were approved and in December the first domestically produced tractors left the works. The plans as approved provide for a total output of approximately 15,000 tractors for 1961 with an initial "national" proportion of 70 per cent; the plans include proposals to construct 31,000 units in 1962 with increasing import substitution. This capacity would be sufficient for present needs, estimated at 10,000 units annually if agricultural mechanization is to be increased and replacement requirements met. At the end of 1959, the total number of tractors in Brazil was 74,000, used for the most part in rice, cotton, millet, sugar cane and coffee growing.

New plans have recently emerged for setting up a tractor industry in Mexico, where tractors were already being assembled in 1958. Meanwhile, in Venezuela a study is being made of whether tractor assembly should be encouraged as a national industry.

(e) Shipbuilding

The shipbuilding projects recently drawn up in a number of countries have gone forward in various respects and this is a sign that the manufacturing industry in Latin America has begun another important stage in its development.

Brazil has the most ambitious programme which includes the creation of a number of new shipyards, some of them of medium size, and also the extenion and modernization of existing yards. By the end of 1959, work had been started in ten shipyards and a number of vessels are now on the stocks. In

the first stage, ships of up to 5,000 tons, and even some of 10,000 tons gross displacement will be built, while in the second stage larger vessels (25,000 tons) will also be constructed. Within a few years, capacity will be such that a total of 150,000 tons gross displacement can be built each year.

In Argentina, new large-scale projects are in preparation or are already under way. There are two yards in the country with modern facilities and, in one of these, three sister ships of 5,000 tons gross displacement each are at present on the stocks.[30/]

Both Brazil and Argentina have a nucleus of ancillary industries which, once developed, should be able to supply a large part of the materials needed in shipbuilding. Imports of certain parts and of a proportion of the required steel will, of course, considerably increase foreign currency commitments. As to specialized technical knowledge, an important part will be paid by foreign firms participating in the majority of the projects in Brazil and two new proposed projects in Argentina.

In Peru, there has also been progress in shipbuilding. In the Callao yards - whose expansion is now projected - the first ship of 8,000 tons was recently launched. In Peru itself and in some other countries - among them Chile and Mexico - the building of shallower-draught vessels for fishing and other purposes is being developed.

(f) Construction of railway rolling stock

In contrast to the lively development characterizing all the foregoing transport equipment producing industries, there is very little progress - at least in the southern part of Latin America - in the manufacture of railway rolling stock, despite the fact that needs are great, particularly for replacements. Nearly all South American railways are using a large proportion of outdated rolling stock and equipment. The railway enterprises, which are frequently State-owned, suffer from lack of resources and, as a result, renewal of equipment is slow, and the low yield of the old equipment is one of the specific

30/ New decrees were issued in the latter half of 1960 to protect the Argentine shipbuilding industry. They establish preference for local enterprises in orders placed by the Government and public bodies and lay down a system of subsidies and exemptions from import duties.

causes of persistent operating deficits.[31]

In 1959, the construction of goods wagons in the four producer countries of Latin America reached the figure of some 3,800 units, and it is estimated that, in 1960, it will amount to almost 4,100, (see table 6). Output figures for 1959 show stagnation for the second consecutive year at the regional level. This was due to the Mexican goods wagon industry - whose production had increased more in earlier years - having to interrupt the building of luggage vans in December 1959 because it had failed to obtain the necessary raw materials as a result of the steel strike in the United States. Another labour dispute affected orders placed in Argentina. In the first months of 1960, the industry continued to suffer from these troubles, but later resumed its expansion.

The construction of goods wagons in Argentina, Brazil and Chile started some time ago. In Mexico, however, the industry began only five years ago. In the first three countries, many of the component parts are nationally produced, while in Mexico gradual substitution of components is only just beginning; it is the aim of the present programme to reduce the imported proportion to 25 per cent of the total.

In the three South American countries, passenger coaches are also built, although in rather small numbers. In Mexico, it has been decided to include this production line in the activities of the building enterprise, and it is proposed to manufacture 500 ordinary passenger coaches for the national railways within five years.

Until recently, no traction equipment was constructed in Latin America. In 1959, the assembly of diesel locomotives was begun in Argentina with the intention of progressively replacing imported components. The assembly of railcars is also starting.[32] However, the capacity of the only plant

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31/ The availability of adequate credits for purchases has a decisive influence on the buying policies of the railway enterprises. As the Mexican wagon industry was in a position to grant credit facilities, it was able to increase its sales. However, the absence of such facilities in other countries obliged the railways to opt for imports.

32/ In the first six months of 1960, the Argentine State railways ordered 150 railcars from the new factory at Córdoba.

/Table 6

Table 6

LATIN AMERICA: CONSTRUCTION OF RAILWAY ROLLING STOCK, 1955-60

(Units)

Country	1955	1956	1957	1958	1959	1960
			A. Goods wagons			
Argentina	194	255	218	380	352*	...
Brazil	1 881	1 949	2 030	1 644	1 950*	...
Chile a/	50	35	50	-	16	57
Mexico	858	1 134	1 518	1 792	1 730	1 517
Latina America	2 983	3 373	3 816	3 816	4 048	
			B. Passenger coaches			
Argentina	14	7	14	12	...	...
Brazil	17	7	6	49	...	...
Chile	31	70	28	28	12	33
Latin America	62	84	48	89	...	...

Sources: Official communications from, or information supplied direct by, Argentina, Brazil and Chile; La Nacional Financiera, and information supplied direct by Mexico.

a/ In Chile the following numbers of narrow-gauge (one metre) goods wagons were also built: 1955 - 20; 1956 -210; 1957 - 220; there was no production in 1958.

b/ Provisional.

/making sufficiently

making sufficiently powerful diesel engines is rather limited, particularly if account is taken of the needs of other countries which it is proposed to meet. Studies have recently been carried out and efforts made to find a solution to the problem of renewing equipment and ensuring expansion within a regionally integrated programme. It is proposed in the near future to export Brazilian rolling stock to Argentina, and similar plans are being studied for exports to Uruguay.

Chapter II

MINING

Introduction

Generally speaking, the Latin American mining industry continued to be highly dependent on foreign markets. Although local consumption of some products denotes a growing market, Latin America exports the bulk of its ore, especially metals. With respect to mineral fuels, the coal mined is mainly for domestic consumption, but on the other hand almost all the petroleum produced in Venezuela, and small amounts produced in other countries, are exported.

The world market for non-ferrous metals, which had been unfavourable since the second half of 1957, improved somewhat during 1959 and 1960, but this improvement was accompanied by fairly wide fluctuations, and there was no evidence of any long-term strengthening. Petroleum, on the other hand, which still had a favourable market in 1958 as a result of the aftermath of the Suez crisis, felt the effects of an abundant supply in 1959 and 1960, mainly because of the boom in Middle East production and growing sales by the USSR. The iron ore situation was very different, because of the links between many Latin American production centres and the great steel companies in the United States. The demand for iron ore expanded considerably during the last decade and exports did not suffer as a result of the recession in the United States in 1958, the long steel strike in 1959, or the new recession that began in 1960. This favourable course of events was due partly to the fact that the mines worked by the United States steel firms in their own country, being of the marginal type, are the first to feel the effects of shrinking demand. Another favourable factor was the growing interest shown by Japanese steel companies, and even some European companies, in Latin American ore. This expalins why the mining and export of iron ore now exceed in value such traditional

items in the region's mining sector as tin, lead and zinc, and why even better prospects of steady and rapid progress are opening up for iron.

Despite the not very favourable conditions prevailing in the non-ferrous metals market, the volume of output and export in that sector continued to rise. The reduction of income in that sector does not appear to have affected the execution of the expansion programmes drawn up previously; this applies particularly to copper. The production of petroleum was also encouraged in a number of countries, but to meet domestic needs rather than for export. Although in 1956 and 1957 there was considerable investment in Venezuela, the rate of increase seems to have fallen instead of rising.

1. Iron ore

Production of this ore was outstanding for its high rate of growth (see table II-1). The cumulative growth rate for the last decade was 22 per cent; after a temporary decline in 1958, the rate recovered again in 1959, when the growth coefficient was almost 24 per cent. The possibility of increased exports in some cases - especially in Brazil - depends partly on the expansion of transport or harbour facilities, or the completion of existing projects of this type.

Although the Latin American steel industry is in a period of full expansion, the decisive factor in the rapid growth rate of iron ore production was undoubtedly the foreign market. Venezuela, whose output constitutes more than half the region's production, has thus far exported all the ore mined. There were also large-scale exports from Brazil, Chile and Peru, not only to the United States, but also on an increasing scale to Europe and Japan. The favourable outlook for external demand was a powerful stimulus to the preparation and execution of the present expansion programmes in almost all of the producer countries, especially in Brazil, Peru and Chile. In the first two countries new investments, were outstandingly large.

In Argentina, on the other hand, domestic requirements were the

/Table II-1

Table II-1

LATIN AMERICA: IRON ORE PRODUCTION IN SELECTED YEARS

(Thousands of tons of iron content)

Country	1950	1955	1959	1960 a/
Argentina	18	38	47	68
Brazil	1 351	2 300	4 353 a/	4 873
Chile	1 771	940	2 549	2 920
Colombia b/	-	105	123 a/	158
Cuba	4	79	20 a/	50
Dominican Republic	-	51	100	80
Mexico	286	429	535	515
Peru	-	1 059	1 950	3 400
Venezuela	127	5 401	11 177 a/	13 736
Latin America Total	3 557	10 402	20 854	25 800
Growth rate compared with the preceding year			12.1	23.7
Annual cumulative growth rates for the periods 1950-55 and 1955-60 respectively		24.0		20.0

Sources: National and international statistics, technical publications and direct information.

a/ Provisional.

b/ Including only crude and medium ore, as fine ore, which represents about 40 per cent of production, is not used.

main factors determining the programme recently drawn up for mining the large deposits in Patagonia.[1/]

As to the possibility of future expansion in Latin America as a whole, surveys of new areas have raised proven reserves of iron ore to over 60,000 million tons; about half of this is in Brazil, where present production is little more than 40 million tons a year.[2/]

2. Copper

Latin American copper production has also made great strides in the last two years, particularly in 1960 (see table II-2). The prime factor determining the increment was the partial equipping of the Chilean mine of El Salvador in 1959 and of the Peruvian mine of Toquepala at the end of that year. Substantial new investment was involved.

As already observed in the case of non-ferrous metals in general,[3/] the copper market was slightly better in 1959 than in 1958, prices remaining stable until nearly the end of 1960. Two of the factors that affected market trends were the strike in the United States and the uncertain situation in the Congo. It was not until the last weeks of 1960 that prices took a further downward turn in relation to the substantial increase in stocks and the industrial recession in the United States.

1/ In 1960, a concession was granted for mining the Sierra Grande deposits, but actual production is not expected to begin for four or five years.

2/ Both figures are expressed in terms of crude ore.

3/ See the introduction to this chapter.

Table II-2

LATIN AMERICA: COPPER ORE PRODUCTION IN SELECTED YEARS

(Thousands of tons of high-grade copper content)

Country	1950	1955	1959	1960 a/
Chile	362.9	433.5	545.0	532.0
Mexico	61.7	54.7	57.0	60.0
Peru	30.2	43.4	50.7	171.4
Other countries	26.3	21.4	18.4	27.2
Latin America Total	481.1	563.0	671.1	790.6
Rate of increase with respect to previous year			9.9	17.8
Annual cumulative rate of increase in 1950-55 and in 1955-60		3.2		7.1
World total (excluding the USSR, Mainland China and Eastern Europe)	2 280	2 730	3 093	...
Latin America as a percentage of the world total	21.1	20.3	21.9	...

Sources: Official and international statistics; technical publications and direct information.

a/ Provisional.

b/ Apart from the three major producers, a certain amount was produced during the period in question by Argentina, Bolivia, Brazil, Cuba, Ecuador and Venezuela.

3. Lead and zinc

Production of lead and zinc ore fluctuated fairly extensively and in opposite directions during the last two years. After increasing slightly more than 12 per cent in 1959, zinc mining declined again in 1960, and in both years the volume produced was less than in 1955 (see table II-3).

A very different trend is observable for lead ore production; this dropped in 1959 only to recover in 1960 when it reached a higher level than in 1955. But if 1950 is taken as the base year, the output of both types of ore will be seen to have increased to much the same extent - 28 per cent in the case of lead and 34 per cent in that of zinc. The lead market apparently deteriorated in the last few years for technological reasons: the competition of plastics in the manufacture of cables and piping for building, and of synthetic chemicals in the preparation of paint.

The two leading lead and zinc producers in Latin America are Mexico and Peru. In Mexico, lead output is decreasing while in Peru it more than doubled in the last ten years.

/Table II-3

Table II-3

LATIN AMERICA: LEAD AND ZINC ORE PRODUCTION IN SELECTED YEARS

(Thousands of tons of metal content)

	Lead				Zinc			
	1950	1955	1959	1960 a/	1950	1955	1959	1960 a/
Mexico	238.1	210.8	191.0	196.0	223.5	269.4	264.0	253.0
Peru	64.9	118.8	115.2	158.0	78.9	166.1	143.1	130.0
Other countries b/	56.5	54.6	75.6	81.0	33.7	57.3	66.7	69.3
Latin America								
Total	359.5	384.2	381.8	435.0	336.1	492.8	473.8	452.3
Rate of increase with respect to previous year			-5.8	13.9			12.3	-4.5
Annual cumulative rate of increase in 1950-55 and 1955-60		1.3		2.5		8.0		-1.7
World total (excluding the USSR, Mainland China and Eastern Europe)	1 560	1 930	1 778	...	2 060	2 690	2 664 a/	...
Latin America as a percentage of the world total	23.0	20.0	20.8	...	16.8	18.3	17.8	...

Sources: As for table II-2.

a/ Provisional.

b/ The other countries are headed Argentina and Bolivia; the remaining producers in the region are Brazil, Chile, Guatemala and Honduras (Ecuador produces only small quantities of lead)

4. Tin

Production of tin ore in Latin America - carried on almost entirely in Bolivia - made a partial recovery in 1959 after the losses it had sustained in 1958, although it failed to regain the volume it had reached in previous years. In 1960 it fell again to a level only slightly higher than that of 1958 (see table II-4).

The salient factor in the expansion of Bolivian production and exports in 1959 was the barter agreement with the United States, which made provision for the exchange for 5,000 tons of tin for agricultural surpluses. In the same year international tin prices improved, with, however, scarcely any effect on the volume of exports, since this is fixed by quota arrangements with each of the signatories of the International Tin Agreement. Nevertheless, exports to the United States under the barter agreement, which were intended for strategic stockpiling, did not form part of the above-mentioned quotas.

In 1960 Bolivia was unable to maintain its previous level of production or even to use its export quota to the full. Efforts were therefore made to reorganize production, to bring some of the plants up to date and launch new geological surveys.

/Table II-4

Table II-4

LATIN AMERICA: TIN ORE PRODUCTION IN SELECTED YEARS

(Tons of high-grade tin content)

Country	1950	1955	1959	1960 a/
Argentina	260	90	220	230
Bolivia	31 710	28 370	23 810	19 690
Brazil	190	150	180	240
Mexico	450	610	380	400
Peru	40	-	-	10
Latin America Total	32 650	29 220	24 590	20 570
Rate of increase with respect to previous year			28.3	-20.1
Annual cumulative rate of increase in 1950-55 and in 1955-60		-2.2		-6.8
World total (excluding the USSR, Mainland China and Eastern Europe)	166 500	181 000	136 000	...
Latin America as a percentage of the world total	19.5	16.2	18.5	...

Sources: As for table II-2.

a/ Provisional.

5. Coal

In Latin America as a whole, coal mining was distinguished by a slow and even declining rate of growth, but with no sharp fluctuations (see table II-5).

Fluctuations at the national level were mainly caused by labour disputes, while the overall slow growth was a result of the fact that most of the coal obtained was consumed in the producer countries themselves or in other parts of Latin America.

So far as its time-honoured uses are concerned, coal is losing ground to petroleum and petroleum derivatives; moreover, except in Colombia and Mexico, it is only used for coking and has an admixture or imported grades.

The slump in Chilean output during recent years was caused by the increased use of fuel oil and the contraction in exports to Argentina. An extensive programme is being carried out to modernize coal mining and thereby reduce the present high production costs.

/Table II-5

Table II-5

LATIN AMERICA: COAL PRODUCTION IN SELECTED YEARS

(Thousands of tons)

Country	1950	1955	1959	1960 a/
Argentina	26	133	300	300
Brazil	1 959	2 268	2 330	2 500
Chile	2 217	2 305	1 890	1 600
Colombia	1 100	1 850	2 480	2 600
Mexico	912	1 342	1 586	1 700
Peru	196	136	173	147
Venezuela	28 b/	31	34	32
Latin America Total	6 438	8 065	8 793	8 879
Rate of increase with respect to previous year			1.6	1.0
Annual cumulative rate of increase in 1950-55 and in 1955-60		4.6		2.0

Sources: As for table II-2.

a/ Provisional.
b/ 1951.

/6. Petroleum

6. Petroleum

Despite unfavourable world market trends, in 1955-60 the extraction of petroleum in Latin America kept up a cumulative annual rate of growth almost as rapid as that achieved in the preceding five-year period. But the increase in output was a good deal smaller in 1960 (see table II-6).

In order to interpret this evolution aright, the case of Venezuela, which is essentially an exporter country, must be distinguished from that of the other countries which produce petroleum mainly or entirely for their own consumption. During the period 1950-55 it was Venezuela that registered the most dynamic development, in relation to the buoyancy of external demand. Conversely, in the second five-year period - to be more exact, when the Suez crisis and its aftermath had died down - the world market situation deteriorated. In the course of this second quinquennium, too powerful an impetus was given to production in Argentina, in Brazil and in Chile, although in the last-named country on a smaller scale. A comparison between five-yearly rates of growth in Venezuela, on the one hand, and in the rest of the Latin American countries on the other, clearly illustrates this change of trends (see again table II-6).

Another characteristic feature of the development of the petroleum sector is the rapid rate at which refining has increased. Most of the Latin American countries - even those which do not produce crude - are tending to expand their refining capacity and to replace imports of petroleum derivatives either by importing crude or by the more efficient utilization of their own primary resources. In the case of Venezuela, of course, the chief objective pursued is to raise the unit value of exports by incorporating a higher percentage of value added in the goods concerned. It should be pointed out that in the other countries refining capacity is steadily growing, and that even in States whose population is small, like El Salvador, Guatemala and Panama, petroleum refineries are in course of construction.

/Table II-6

Table II-6

LATIN AMERICA: EXTRACTION AND REFINING OF CRUDE PETROLEUM IN SELECTED YEARS

(Thousands of tons)

	Extraction				Refining			
	1950	1955	1959	1960 a/	1950	1955	1959	1960 a/
Argentina	3 357	4 365	6 384	9 150	6 389	8 652	11 364 a/	...
Bolivia	80	351	413	415	81	351	412	408
Brazil	38	264	3 083	3 850	71	3 586	7 653	...
Chile	82	336	838	943	-	670	1 222	1 201
Colombia	4 699	5 493	7 404	7 708	1 253	1 955	3 350	3 353
Cuba	2	48	30	48	289	320	1 200 a/	...
Ecuador	347	466	364	370	213	265	373	503
Mexico	10 363	12 793	15 570	15 987	8 056	11 272	15 423	15 630
Peru	2 007	2 303	2 364	2 360	1 628	1 979	2 376	...
Uruguay	-	-	-	-	780	1 130	1 530	...
Total	20 975	26 419	36 450	40 831	18 760	30 180	44 903	...
Annual rate of growth b/			10.4	12.0			6.0	...
Cumulative rate of growth c/		4.7		9.1		10.0		...
Venezuela	79 975	115 169	147 936	153 370	13 377	28 649	44 011	47 500
Annual rate of growth b/			6.4	3.7			12.6	7.9
Cumulative rate of growth c/		7.6		5.9		16.5		10.7
Latin America	100 950	141 588	181 386	194 201	32 097	58 829	88 914	...
Annual rate of growth b/			7.2	5.3			9.2	...
Cumulative rate of growth c/		7.0		6.5		12.9		...
World (excluding Mainland China)	522 900	772 800	978 400	1 051 700				
Latin American percentage of world total	19.3	18.3	18.5	18.5				

Sources: As for the table II-2.

a/ Provisional.

b/ Rate of variation in relation to the preceding year.

c/ Rate of cumulative growth for the five-year periods 1950-55 and 1955-60, respectively.

Chapter III

A G,R I C U L T U R E[1/]

I. THE OVERALL SITUATION

In the two-year period 1959-60, Latin American agriculture continued to develop at the slow rate characteristic of recent years. Over the short term, agriculture has remained virtually at a standstill in Latin America, owing to diverse factors, whose incidence has varied in nature and intensity from one part of the region to another. Over the longer term, production in a number of countries is still suffering from the ill-effects of a defective agrarian structure, which retards agricultural development and therefore the growth of the economy in general.

Furthermore, in many Latin American countries agricultural production for domestic consumption has not been increasing at the same rate as the population. Such was the case in 1959, when the production of crops for domestic consumption expanded by only 2.4 per cent as against a population increment of 2.5 per cent in Latin America as a whole. To judge from the preliminary data available, this trend seems to have persisted in 1960.

The practice of making up deficits in food supplies by means of the palliative of imports has been kept up, with the consequent diversion of large amounts of foreign exchange from more productive uses, such as, for example, imports of capital goods. In the fiscal year which ended in June 1959, exports of foodstuffs from the Unites States - the region's leading supplier - to the 20 Latin American republics represented approximately 460 million dollars. In 1959/60, their value rose to 495 million dollars, i.e., by 8 per cent.

Latin America is at present passing through a period of demographic expansion in which the rate of growth of its population is one of the highest in the world. If agricultural production continues to develop as slowly as at present, it will remain incapable of satisfying the population's food requirements, and imports of foodstuffs will have to be increased if <u>per capita</u> consumption is to be maintained at least at current levels. Expressed

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1/ This chapter was prepared by the Joint ECLA/FAO Agriculture Division.

in terms of energy, these levels in 1958 averaged slightly more than 2,600 calories daily in Latin America as a whole, ranging from a minimum of some 1,900 calories daily in Haiti and Bolivia to a maximum of a little over 3,000 in Argentina.[2/]

In 1959 unfavourable weather conditions - in particular, heavy rainfall, sometimes followed by torrential floods - severely affected agricultural production in the southern countries of Latin America (Argentina, Brazil, Chile, Paraguay and Uruguay), and in some of them caused serious material damage, the effects of which were still making themselves felt well on into the year 1960.

In the last two years under consideration, the trend of world prices for Latin America's staple agricultural exports was distinctly unfavourable. In fact, quotations for cotton, coffee, cacao, sugar and bananas declined perceptibly in the course of this period. Linseed oil prices, which fell in 1959, recovered to some extent in 1960, but without regaining the level registered two years before. Beef prices rose slightly, while those of hard fibres - henequen, sisal and agave -, which are products of less economic significance for Latin America, substantially increased.[3/]

As an example of the prejudicial impact of international prices on agricultural production in Latin America in 1960, the case of cotton may be cited. The fall in world prices registered in 1959 reduced sowings in Mexico, Guatemala, El Salvador and Nicaragua - which, together with Peru, are Latin America's leading exporters -, with the result that in all of them the output of cotton decreased sharply in 1960, dropping to the lowest levels recorded in recent years. This affected agricultural production figures in the four countries mentioned, and determined a substantial contraction of Latin American exports (22 per cent) in the cotton year 1959/60.

2/ United States Department of Agriculture, Food Balances in Foreign Countries, Part III: Estimates for 20 Republics of Latin America, Washington, November, 1960.

3/ See the present Survey (E/CN.12/565), Part One, chapter III, for further details on prices of primary commodities and their fluctuations.

/As the

As the coffee supply cannot be altered at will from one year to another, output continued to increase in 1959 and 1960 despite the downward trend of prices. Hence new surpluses went to swell the already over-abundant coffee stocks. However, the Latin American countries were successful in their efforts to regulate exports inasmuch as an International Coffee Agreement was concerted, which entered into force on 1 October 1959, for a period of one year, and which covers approximately 85 per cent of world trade in this commodity. The Agreement, which constitutes a means of methodically placing coffee on foreign markets, was prorogued for a further year in 1960, and seems to have halted the downward movement of prices for the Latin American varieties (arabica), stabilizing them at their 1959 level. Prices of African coffees - especially the robusta variety - continued to decline.

In Argentina, which is Latin America's leading producer of cereals and stands alongside the United States, Canada and Australia as one of the world's principal wheat exporters, exportable production of fine grain - wheat, oats, barley, rye and linseed - contracted from 6.5 million tons in 1956/57 to 4.9 million in 1959/60. Preliminary estimates suggest that in 1960/61 the volume in question will be reduced still further, to 2.2 million tons. In 1958/59, exportable production of wheat, which amounted to 4.0 million tons, exceeded that of the preceding year by 18 per cent, but in 1959/60 it shrank to 3.1 million tons. Estimates for 1960/61 place it at 900,000 tons, one of the smallest volumes hitherto registered in Argentina. The chief cause of the decline in production was the drought which hindered sowings and affected the crop.

The change in the United States Sugar Act at the beginning of July 1960, together with the elimination of Cuban sugar from the United States market during the remainder of that year and the first quarter of 1961, constituted an event of supreme importance for the agricultural economy of Latin America, and altered the structure of the world sugar market. Cuba's quota was redistributed among other producer countries, 675,811 short tons falling to the share of Peru, the Dominican Republic, Mexico, Nicaragua, Haiti, Panama, Costa Rica, Brazil, Guatemala and El Salvador, over and above the normal quota of 90,440 short tons which corresponded to the first eight of the countries listed.

/Cuba, in

Cuba, in its turn, sold 2,350,000 metric tons to the centrally planned economies - mainly the USSR -, at world market prices, requiring 20 per cent to be paid in cash while the remainder was covered by barter arrangements. The immediate effect of these significant changes in the direction of the sugar trade was an exceptional boom in Latin American exports during the last half of 1960.

It seems that in 1961 the above-mentioned Latin American countries, as well as Colombia and Ecuador, will continue to benefit by the better sugar prices prevailing on the United States market. Cuba has concerted a new trade agreement with the USSR and other centrally planned economies, under the terms of which it will sell 4 million tons of sugar in 1961, at a price of 4 dollar cents per pound.

II. SITUATION OF SELECTED COMMODITIES

1. Sugar

The most important development in the international sugar market in 1960 was the amendment in July of the United States Sugar Act, which had the effect of excluding Cuban sugar from the United States market for the remainder of that year and the first quarter of 1961. In recent years, Cuban exports of sugar to the United States had amounted to 3 million tons a year, which is almost a third of United States consumption. It should be added that, because of the protectionist character of the Sugar Act, the price of Cuban sugar was 2 or 2 1/2 cents more in the United States market than in the world market.

In the last two years, world production of centrifugal sugar has reached record levels. Meanwhile Latin America's contribution to world production remained steady, and its exports, which had declined slightly in 1959 compared with the previous year, appeared to have recovered during the first six months of 1960. World prices, which on the average had dropped by 15 per cent between 1958 and 1959 - from 3.50 to 2.97 cents a pound - rose somewhat in the third quarter of 1960, after the Cuban Sugar Stabilization Institute (Instituto Cubano de Estabilización del Azúcar (ICEA)) set a minimum price of 3.25 cents f.o.b. for its sales. However, in the last months of the year other producers offered consignments on the world market

/at a

at a price much lower than the Cuban minimum, and quotations for unrefined sugar c.i.f. London were the equivalent of less than 3 cents a pound f.o.b. ports in the north of Cuba.

(a) Production

In 1959, world output amounted to the record high figure of 50.9 million tons, an increase of almost 4 million tons compared with the previous year, and in 1960, 50.3 million tons were produced. Preliminary estimates for 1961 make it seem likely that a new record of 55.5 million tons will be set.

Latin American production of centrifugal sugar remained more or less stable during 1959 and 1960, while the total sugar crop for the region rose to 14.6 million tons in 1959 and 14.8 million in 1960. The contribution of this crop to world production remained stable during the period, with a slight change from 28.6 per cent in 1959 to 29.4 per cent in 1960. Preliminary estimates for 1961 indicate that Latin American production exceeded 15.8 million tons.

Cuba is the principal Latin American producer of centrifugal sugar and until 1959 it was the leading world producer. In that year, the USSR for the first time produced more than 6 million tons, thus surpassing Cuba, which produced only 5.96 million.

In 1960, Cuban output (5.86 million tons), although 100,000 tons less than in 1959, constituted approximately 40 per cent of all Latin American production. Next came Brazil with 3.38 million tons, Mexico with 1.62 million, Argentina with 1 million, the Dominican Republic with 940,000 tons and Peru with 815,000 tons (see table III-1).

The countries listed are Latin America's main sugar producers; taken together, their output amounted to 13.62 million tons, more than 90 per cent of the Latin American total.

(b) Exports

Latin America's share of world exports is larger than its share of production; whereas the latter is only about 30 per cent of the world total, its exports are over half of the world total.

This is a result of both ecological and political factors. As sugar is an item of prime necessity, attempts are made the world over to produce either beet or cane sugar in almost all climates. This widespread production

/Table III-1

Table III-1

LATIN AMERICA: SUGAR PRODUCTION 1959-60 AND ESTIMATES FOR 1961

(Thousands of tons)

Country	1959	1960	1961
Cuba	5 962	5 862	6 715 a/
Brazil	3 591	3 379	3 600
Mexico	1 368	1 620	1 690
Argentina	1 139	1 001	800
Dominican Republic	781	940	950
Peru	706	815	840
Colombia	283	330	355
Venezuela	163	202	270
Ecuador	92	95	100
Nicaragua	70	73	75
Guatemala	67	70	75
Chile	55	79	36
Haiti	49	60	66
Costa Rica	56	57	60
El Salvador	46	51	50
Paraguay	39	36	29
Panama	24	24	25
Bolivia	17	17	27
Uruguay	32	37	36
Honduras	16	21	20
Total, Latin America	14 556	14 769	15 819

Sources: F.O. Licht, Segunda estimación de la producción Europea de Azúcar and Primera estimación de la producción mundial de azúcar (2 December 1960).

a/ Cuban sugar production according to the Decree of 18 January 1961.

/undoubtedly results

undoubtedly results in greatly varying degrees of economic efficiency. In many cases where natural resources for sugar production are inadequate, or where there is no clear comparative advantage in undertaking it, these deficiencies are usually offset to some extent by such measures of economic policy as protective tariffs or import quotas.

Cuba, the largest Latin American producer, produces almost entirely for export, its domestic consumption being only 300,000 tons yearly. The situation is similar in the Dominican Republic, which also exports the bulk of its production. Latin America's other traditional exporter, Peru, exports approximately two thirds of a sugar it produces. Brazil, which was formerly a large producer and exporter, has begun to emerge again as a producer in recent years; in 1959, of a sugar output of 3.6 million tons, it exported 600,000 tons, or 17 per cent. Until recently Mexico was an importer, but in the last three years it too has been exporting a certain amount; in 1959, its exports of 135,000 tons amounted to less than 10 per cent of its output of 1.4 million tons (see table III-2).

In 1959, Cuban exports amounted to 39 per cent of the world total and 71 per cent of Latin American exports. Cuba's exports, added to those of Brazil, Peru and the Dominican Republic, constituted 97 per cent of all Latin American exports in 1959. With one or two exceptions the other countries produce only to meet their own needs, or are deficit producers or marginal exporters.

In 1959, Latin American sugar exports were almost 800,000 tons less than in 1958. Most of this reduction was due to the drop in Cuban exports, which fell from 5.63 million tons in 1958 to 4.95 million in 1959. In Brazil, exports shrank by 170,000 tons and in Mexico by about 50,000 tons. Peruvian exports, on the other hand, expanded by almost 90,000 tons, while those from the Dominican Republic remained at a level of about 700,000 tons.

Incomplete data available for 1960 indicate that Latin American sugar exports will be substantially higher than for 1959. Cuban exports of 4.8 million tons for the first ten months were 14 per cent higher than the 4.2 million tons exported during the corresponding period in 1959. Brazilian exports increased more rapidly (28 per cent) during the first eleven months of 1960, while Mexico's exports of 439,000 tons during the first nine months

/Table III-2

Table III-2

LATIN AMERICA: EXPORTS OF CENTRIFUGAL SUGAR, 1958-60

(Thousands of tons)

Country	1958	1959	Months	1959	1960
Cuba	5 632	4 952	I-X	4 166	4 789
Brazil	776	606	I-XI	569	729
Dominican Republic	669	668	I-VIII	545	617
Peru	411	499	I-XI	437	458
Mexico	187	135	I-IX	135 a/	439
Nicaragua	22	18		...	...
Ecuador	22	31		...	...
Paraguay	0	15		...	...
El Salvador	8	7		...	...
Costa Rica	1	7		...	...
Haiti	6	6		...	...
Panama	5	5		...	...
Guatemala	0	1		...	...
Venezuela	9	0		...	...
Argentina	0	0		...	...
Total	7 748	6 950		5 852	7 094
World exports	13 678	12 881			

Sources: International Sugar Council, Statistical Bulletin (January 1961).

a/ Total exports for 1959, since the data for the first nine months alone are not available for purposes of comparison.

/were more

were more than triple its total sugar exports for 1959. Moreover, the radical structural changes in the international sugar market that took place in the second half of 1960 are an indication that the sugar exports of the other countries had increased to an extraordinary extent, and that all the Latin American totals must have set records.

(c) Structural market changes

In February 1960, the USSR concluded a trade agreement with Cuba under which it undertook to import one million tons a year of Cuban sugar for a five-year period, 20 per cent to be paid for in cash, and the rest by barter. This sugar is not to be re-exported to what might be regarded as Cuban markets. In due course the USSR granted Cuba credit to purchase goods to the value of 100 million dollars. It should be recalled that, during the five-year period 1955-59, Cuba had sold an annual average of 298,000 tons to the USSR for cash.

On 6 July, 1960, the United States Congress amended the Sugar Act, authorizing the President to fix the Cuban sugar quota for the rest of that year and the first quarter of 1961. The United States President used this power to establish a Cuban sugar quota of 39,752 short tons for the remainder of 1960. This constituted a reduction of 700,000 short tons, compared with 3,119,655 short tons originally established for 1960 on the basis of a total United States sugar consumption of 9.4 million tons, plus 156,000 that Cuba hoped to have added to its quota to make up the deficit left by other exporting countries. As a result, the aggregate quotas were increased from 9.4 to 10.4 million tons; the corresponding increments for the other producer countries were mainly at the expense of the original Cuban quota[4/] (see table III-3).

Hence the additional quota allocated to the Latin American countries for the remainder of the year totalled 914,924 short tons. The 321,957 short tons assigned to the Dominican Republic were bought at about the same

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4/ A United States consumption of 10.4 million tons would have implied a Cuban quota of 3,415,555 short tons, hence the cut in the Cuban quota for 1960 actually amounted to 995,900 tons, plus the 156,000 of quota deficit, that is, a total of 1,151,900 tons on which Cuba failed to obtain the premium of 2 to 2 1/2 cents per pound that it had been receiving until then for its sales in the United States.

Table III-3

SUGAR QUOTAS AND BREAKDOWN OF NON-QUOTA PURCHASES AUTHORIZED IN THE UNITED STATES, 1960

(Short tons)

	Altered quotas	Non-quota purchases authorized	Total
Domestic production			
Beet sugar	2 514 945	-	2 514 945
Cane sugar	773 873	-	773 873
Hawaii	940 444	-	940 444
Puerto Rico	893 620	-	893 620
Virgin Islands	8 618	-	8 618
	5 131 500		5 131 500
Foreign production			
Reduced Cuban quota	2 419 655	-	2 419 655
Philippines	980 000	176 426	1 156 426
Full-duty countries			
Peru	138 827	135 000	273 827
Dominican Republic	130 957	321 857	452 814
Mexico	115 809	284 628	400 437
Nicaragua	19 766	22 000	41 766
Haiti	9 105	26 567	35 672
Panama	4 218	6 258	10 476
Costa Rica	4 202	6 267	10 469
Brazil	-	100 347	100 347
El Salvador	-	6 000	6 000
Guatemala	-	6 000	6 000
Total, Latin America a/	(422 884)	(914 924)	(1 337 808)
Other countries	10 061	108 650	118 711
Total	8 964 100	1 200 000	10 164 100
Non-quota purchases authorized			235 900
Consumption requirements			10 400 000

Source: United States Department of Agriculture, Sugar Reports (November 1960).
a/ Excluding Cuba.

/rate as

rate as the world price, since it was made a condition that the importers should pay to the United States Government a duty of 2 cents per pound before being authorized to bring the sugar into the country. Because of this proviso, only 593,067 short tons of the total additional amount allocated to the Latin American countries received the benefit of the premium paid on the United States market.

At the end of July, the Cuban Sugar Stabilization Institute (ICEA) announced that it had sold a further 700,000 tons to the USSR at 3.25 cents per pound, and that it had signed an agreement with the People's Republic of China under which that country undertook to purchase 500,000 tons a year of sugar for a five-year period, although the agreed price was not revealed. During the first year, the purchaser was to pay for one-fifth of these imports in pounds sterling, and for the rest by barter; during the following four years, payment would be made wholly in Chinese goods. Some Eastern European countries also undertook to buy smaller amounts of Cuban sugar; it was calculated that sales to this group of countries in 1960 might amount to some 2.35 million tons. Thus estimated Cuban sales to the countries with a centrally planned economy subsequent to the amendment by the United States of the Sugar Act amounted to 1.35 million tons, which fully made up for the volume of sugar left unsold to the United States. However, these additional sales did not suffice to make up the difference between the price paid in the United States and the world market price.

It should not be overlooked that, of the total of 2.35 million tons that Cuba sold to the countries with a centrally planned economy in 1960, only 20 per cent was paid for in cash, and that full payment for a considerable part of the remaining 80 per cent will have to await completion of the barter transactions involved.

The main item imported by Cuba from the USSR during the second half of 1960 was crude oil. The Cuban Government had announced that contracts had been placed in the USSR and neighbouring countries for a number of industrial plants. But, as it will take long to set up these plants, it will be some time before they can begin operating. In view of these considerations, it is obvious that, as long as Cuba does not receive goods in return for the whole of its exports to these countries, it will in effect be subsidizing

these purchases by the amount of the outstanding debt.

(d) Prices

Sugar prices on the world market, which had reached an annual average of 3.5 cents per pound in 1958, began to fall from the beginning of 1959 and reached their lowest level of 2.84 cents in the third quarter; there was a slight recovery to 3 cents in the last quarter (see table III-4). In the first half of 1960, prices remained stable at that level, which was below the minimum of 3.25 cents set by the International Sugar Agreement for the reduction of the export quotas of the participating countries by the Sugar Council.

Although the exclusion of Cuba from the United States market in the middle of 1960 and the subsequent announcement of further purchases by the USSR and China (mainland) foreshadowed far-reaching changes in the international sugar market, there was no apparent change, at least at first, in the volume of sugar offered on the free market. Nevertheless, the likelihood that the countries with a centrally planned economy would absorb substantial amounts of sugar in addition to those they normally take had an immediate effect in strengthening prices. Thus the world price, which on 27 June had fallen to 2.85 cents per pound - the lowest since August 1959 - rallied by 52 points during the next three weeks and on 19 July 1960 reached 3.37 cents, the highest price since 5 January 1959.

On 7 July 1960, ICEA announced a minimum sales price of 3.25 cents per pound. In spite of this, prices began to fall in August and this trend was accentuated at the end of the year by the prospect of large increases in world production in 1961.

This weakening could not be reflected in the prices of Contract No.4 on the New York Coffee and Sugar Exchange (unrefined sugar, f.o.b. Cuban ports), which constitute the basic contract prices of the International Sugar Agreement, since, after the minimum price of 3.25 cents had been established by ICEA, there were no more transactions in future under this contract. As a result, Contract No.4 was suspended and replaced in December by a new contract (No.8) authorizing futures in sugar from Mexico, the Dominican Republic, Peru and other countries.

Table III-4

Table III-4

INTERNATIONAL SUGAR PRICES, 1958-60

(Cents per pound)

		1958		1959		1960	
		World a/	United States b/	World	United States	World	United States
Quarterly average	I	3.57	5.27	3.14	5.13	3.01	5.05
	II	3.45	5.39	2.88	5.27	3.02	5.21
	III	3.48	5.46	2.84	5.53	3.27	5.57 c/
	IV	3.49	5.54	3.02	5.48		
Annual average		3.50	5.42	2.97	5.35	3.10	5.28

Source: International Sugar Council, Statistical Bulletin (August-September 1960), and United Nations, Monthly Bulletin of Statistics (November 1960).

Note: The difference between the two prices represents the premium paid under the United States quota system to Cuba, which is now received by the countries among which the former Cuban quota has been distributed.

a/ F.o.b. Cuba price of unrefined sugar for export to the world market.

b/ F.o.b. Cuba price of unrefined sugar for export to the United States.

c/ The quotations for July, August and September are taken from the United States Department of Agriculture, Sugar Reports (October 1960)

/In the

In the absence of free-market sugar quotations on the New York Coffee and Sugar Exchange, the best indicator of the world price is the London Committee's price. This fell steadily from 30 shillings and sevenpence halfpenny per hundredweight at the beginning of August to 25 shillings and ninepence in mid-December. After deduction of freight and other charges, these prices correspond to 3.36 and 2.66 cents per pound, respectively. Morover, the fact that in the last months of the year transactions were taking place at prices below the minimum set by Cuba shows clearly that that price was somewhat out of line with market realities.

(e) Outlook for 1961

In mid-December 1960, the United States set a figure of 2.5 million short tons for domestic sugar consumption in the first quarter of 1961, which represents an annual consumption of 10 million tons, and Cuba continued to be excluded from the United States market in accordance with the new sugar policy (see table III-5).

When the former Cuban quota was first redistributed in July 1960, non-quota purchases were authorized from the Latin American countries mentioned in the Sugar Act as being entitled to import quotas in the United States, namely Costa Rica, the Dominican Republic, Haiti, Mexico, Nicaragua, Panama and Peru, and also from Brazil, El Salvador and Guatemala.[5/] During the December reallocations, Colombia and Ecuador were added to the list of Latin American countries which would have access to the United States market in that quarter.

The whole of the quota of 824,299 short tons that would have been Cuba's was distributed among other producers; the Latin American countries listed above were allocated 675,811 tons which, added to their normal quota of 90,440 tons, amounted to 766,251 tons. The Dominican Republic obtained a quota of 250,512 short tons, Peru 245,377 and Mexico 215,000, but the sugar from the Dominican Republic was again made subject to a duty of 2.25 cents per pound.

5/ It goes without saying that Brazil, which at the end of June 1960 had 319,000 of sugar stocks, was not satisfied with the allocation of 100,000 tons it received then. Table III-5 shows that the quota allocated to Brazil for the first quarter of 1961 is even smaller.

Table III-5

SUGAR QUOTAS AND BREAKDOWN OF NON-QUOTA PURCHASES OF SUGAR AUTHORIZED IN THE UNITED STATES, FIRST QUARTER OF 1961

(Short tons)

	Quotas	Non-quotas Purchases authorized	Total
Domestic production			
Beet sugar	544 443		544 433
Cane sugar	167 531		167 531
Hawaii	303 853		303 853
Puerto Rico	317 716		317 716
Virgin Islands	4 332		4 332
Domestic total	1 337 875		1 337 875
Foreign production			
Peru	30 377	215 000	245 377
Dominican Republic	27 789	222 723	250 512
Mexico	23 852	191 168	215 020
Nicaragua	4 368	16 000	20 368
Haiti	2 067	433	2 500
Panama	995	1 505	2 500
Costa Rica	992	1 508	2 500
El Salvador	-	2 000	2 000
Guatemala	-	2 000	2 000
Brazil	-	11 474	11 474
Ecuador	-	6 000	6 000
Colombia	-	6 000	6 000
Total Latin America	(90 440)	(675 811)	(766 251)
Philippines	245 000	122 683	367 683
Other countries	2 386	25 805	28 191
Total	1 675 701	824 299	2 500 000

Source: United States Department of Agriculture, USDA 3752-60, (22 December 1960).

/The United

The United States Sugar Act should have expired on 31 December 1960. Congress's normal practice is to extend the Act for a period of four years, making any necessary amendments. When the Act was amended in July, however, it was extended until 31 March 1961. Consequently, Congress will have to convene early in 1961 to extend the Act for a longer period or else to amend it considerably.6/

Assuming that the present Act is extended and that the quota distribution of the first quarter is maintained for the rest of the year, the allocation for foreign countries for the whole of 1961 will be as follows:

	Hypothetical quotas for 1961 a/	Approximate exportable surplus b/	Quota deficit
	(Thousands of tons)		
Dominican Republic	909	860	- 49
Peru	890	550	-440
Mexico	780	490	-290
Brazil	42	1,000	(+958)
Philippines	1,334	1,070	-264
Nicaragua	74	35	- 39
Others	187	187	0
Total	4,217	4,231 (+958)	+ (-1,082)

a/ Obtained by multiplying the quotas for the first quarter of 1961 by four.

b/ Estimate obtained by subtracting from the production data in table III-1 the estimated domestic consumption for each country in 1961.

The above figures are based on the assumption that, in view of the abnormally high sales of sugar to the United States in the second half of 1960, the countries concerned should have ended the year with minimum stocks.

6/ Early in February, the Chairman of the Agricultural Committee of the House of Representatives submitted to Congress a bill to extend the Sugar Act for 21 months, until 31 December 1962. This bill would authorize the President to continue to exclude Cuba from the United States market. It is understood that the President would ask Congress not to grant the Dominican Republic that portion of the former Cuban quota that would otherwise be allocated to it.

/It is

It is further assumed that the group of countries with comparatively small quotas[7] will have no difficulty in meeting them. It is clear, however, that none of the other countries, except for Brazil, will be in a position to meet such quotas.

It may logically be expected that, in order to benefit from the higher price prevailing in the United States market, all the countries that have access to it would try to divert their sugar to that market and, in doing so, fail to fill the export quotas authorized by the International Sugar Agreement; this happened before, though on a smaller scale, in the last half of 1960 (see table III-6).

In fact, as a result of changes in the trend of trade in 1960, the International Sugar Council on 22 June increased the export quotas to 100 per cent of the basic export tonnage, and raised it again to 105 per cent on 3 August. In addition China (Taiwan) had renounced 87,022 tons of its quota, the Dominican Republic 140,000 and Peru 230,000. This total of 457,022 tons was redistributed on 5 October, in accordance with article 11 (2) of the Agreement, among Brazil (80,954 tons), Cuba (355,461), Hungary (5,888), Mexico (11,039) and the Philippines (3,680 tons).

At the end of November, the Eigth Meeting of the International Sugar Council was held in Mexico City.[8] In view of the greater output expected in 1961, the net import requirements of the free market were set at 6.38 million metric tons, 850,000 tons less than in 1960. The Council estimated that supplies would amount to 7.39 million tons,[9] which would exceed requirements by 1 million tons. With this in mind, it established initial

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7/ Belgium, British Guiana, Canada, Colombia, Costa Rica, China (Taiwan), Ecuador, El Salvador, the Federation of the West Indies, Guatemala, Haiti, Hong Kong, Netherlands, Panama and the United Kingdom.

8/ The Council approved Ecuador's request to accede to the Agreement, on the terms specified in article 14 (3), and after considering Colombia's request, approved the conditions to be proposed to that country.

9/ Namely, basic export tonnage 6,345,000 tons, other exports allowed under the Agreement 435,000 tons, and maximum exports from non-participating countries 600,000 tons.

Table III-6

SUGAR EXPORT QUOTAS UNDER THE INTERNATIONAL SUGAR AGREEMENT, 1960-61

(Thousands of tons)

Country	Basic export tonnage a/	Original quotas 1960	Quotas in force on 5 October 1960 b/	Original quotas 1961 c/
Belgium	55.0	48.1	-	46.8
Brazil	550.0	481.3	759.0	467.5
China (Taiwan)	750.0	696.3	900.0	637.5
Cuba	2 415.0	2 261.9	3 695.9	2 052.8
Czechoslovakia	275.0	240.6	189.8	233.8
Denmark	75.0	65.6	29.0	63.8
Dominican Republic	655.0	592.4	725.6	556.8
France	20.0	18.0	-	18.0
Haiti	45.0	40.5	6.0	40.5
Hungary	40.0	36.0	52.1	36.0
Indonesia	400.0	350.0	50.0	340.0
Italy	20.0	18.0	-	18.0
Mexico	75.0	65.6	103.0	63.8
Netherlands	40.0	36.0	-	36.0
Peru	490.0	428.8	240.0	416.5
Philippines	45.0	40.5	58.1	40.5
Poland	220.0	192.5	50.0	187.0
Portugal	20.0	18.0	-	18.0
Soviet Union	200.0	175.0	-	170.0
Total	6 390.0	5 805.0	6 858.6	5 443.0

Source: International Sugar Council.

a/ In accordance with article 14 (1) of the Agreement, which also provides that Costa Rica, El Salvador, Guatemala, Nicaragua and Panama may each export up to 5 000 tons, in terms of on unrefined sugar, per year.

b/ Increase in quotas to 105 per cent of the basic export tonnage plus redistribution of 457 022 tons as mentioned in the text.

c/ Based on 85 per cent of the basic export tonnage.

/export quotas

export quotas provisionally - leaving the final decision to be made before 1 April 1961 [10] - at 85 per cent of the basic export tonnage, thus achieving a statistical balance of supply and demand (see table III-6).

Thus, by adding to the original quota of 5,443,000 tons the special quotas of 435,000 tons and the maximum exports of 600,000 tons to be expected from non-participating countries, the Council decided that supplies of sugar on the free market in 1961 would amount to 6,478,000 tons, that is, not quite 100,000 tons more than its estimates of net import requirements for the free market (6,380,000 tons); consequently, the market was regarded as being in balance.

The following list groups on a more logical basis the sugar exports quotas (in thousands of tons) originally established by the International Sugar Council for 1961:

Countries supplying the United States	
China (Taiwan)	637.5
Dominican Republic	556.8
Brazil	467.5
Peru	416.5
Mexico	63.8
Philippines	40.5
Haiti	40.5
Total	2,223.1

Countries supplied by Cuba	
Czechoslovakia	223.8
Poland	187.0
USSR	170.0
Hungary	36.0
Total	626.8
Cuba	2,052.8
Others	540.3
Special quotas	435.0
	5,878.0
Non-participating countries	600.0
	6,478.0

10/ The Council met on 20 February to fix the sugar export quotas for the year and to consider the advisability of deciding on a new basic contract price for the purposes of article 20 (1) of the Agreement. No further information was available at the time of writing.

/The countries

The countries listed above - which, it is assumed, will be the United States' principal suppliers in 1961 - are likely to give up their export quotas under the International Agreement. In point of fact, as already indicated, they would probably find it difficult to satisfy all the United States import requirements. A large proportion of the sugar in question could be reallotted to Cuba for export to the world market. Similarly, the fact that the United States will need to import additional quantities of sugar over and above the supplies from its new sources will leave a vacuum which may well be filled by Cuba.

Moreover, it is possible that the increase in production, which is anticipated for the 1961 farm year in Belgium, the Federal Republic of Germany, France and the Netherlands - all long-standing customers of Cuba -, will have a marked effect on Cuba's prospects of exporting to these markets in the subsequent farm year. According to F.O. Licht's second estimate, this group of European countries will produce 2 million more tons of sugar in 1961. In 1959, their imports of Cuban sugar were about 428,000 tons. In addition, France has the right to export up to 380,000 tons to the free market and Belgium 25,000 tons to Morocco, and supply estimates indicate that they will probably find it quite easy to do so.

With respect to the group of countries which will be supplied by Cuba in 1961, on an exceptional basis, and produce more than enough to cover their requirements - Czechoslovakia, Hungary, Poland and the USSR -, article 8 (1) of the Agreement stipulates that the participating countries may not exceed their export quotas. This being so, hardly any change would take place, since the USSR would not send more than 170,000 tons to the free market and the three remaining countries are habitual exporters. Hence, the combined exports of the four countries would increase the free market supply to the sole extent of 170,000 tons from the Soviet Union.

Thus, on a conservative estimate, Cuba may receive later in the year export quotas of approximately 3 million tons. This is not an unduly high figure in view of the fact that, when the final allotment was made to Cuba on 5 October 1960, its export quota totalled 3,695,935 tons. Although the prescribing of such quotas does not of course guarantee that the country receiving them will actually export that amount, it should be

/noted that,

noted that, in the first ten months of 1960, Cuba sent 2,839,000 tons to the free market. Hence, it seems unlikely that it will have any difficulty in exporting a quantity that is very close to 3 million tons to the free market in 1961.

On 19 December 1960 a new sugar agreement was signed between Cuba and the countries with a centrally planned economy, under which the USSR will buy 2.7 million tons of sugar, the People's Republic of China 1 million and the other countries 300,000 tons. The price agreed upon - 4 cents per pound - is higher than the prevailing market quotation. No details are available on the mode of payment. When the news was published in Cuba, it was stated that sugar cultivation would be carried on without any restrictions in 1961, in other words that the country's entire stock of cane would be gound.[11/]

In accordance with these criteria, under the terms of the Decree of 18 January 1961 Cuban sugar production in that year will be distributed as follows:

	Tons
Quota for domestic consumption	360,040
Free quota for export to the world market	2,052,750
Compulsory reserve quota (article 13 (3) of the International Sugar Agreement)	301,875
Voluntary reserve quota for export to the world market	4,000,000
Total	6,714,665

An initial quota of 4 million tons will be distributed among the industrial units, and the cane ground in each mill will be paid at the final price of 3.64 cents per Spanish pound of sugar.[12/] Furthermore,

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11/ Speech by the Prime Minister of Cuba, as reported in the newspaper Revolución, Havana, 20 December 1960.

12/ This price is 1.06 cents less than that of 4.70 cents quoted in the speech mentioned in footnote 11.

Cuban mills were authorized to grind, in addition to the cane required for initial quota of 4 million tons, "the surplus cane produced in every one of their respective agricultural units" to be paid for at the provisional price of 2.50 cents per Spanish pound of sugar. If all this is sold at an average price of more than 2.50, the mills will make the necessary additional settlement.

According to the speech referred to, more than 10,000 caballerías (134,000 hectares) of sugar cane were left uncut during 1960, when 5.86 million tons of sugar were produced. For this reason, the target of 6.7 million tons fixed for 1961 is considered to be a reasonable one. On the basis of this figure, world sugar output in 1961 will be about 55.5 million tons, i.e. 5.2 million more than in 1960 (see table III-7).

The largest increments in production would take place in Latin America (1.1 million tons), Western Europe (1.9 million), the USSR (1 million) and Eastern Europe (890,000 tons). The United States - including Hawaii and Puerto Rico - would have 350,000 tons more and China (mainland) 145,000, while production would decline slightly by 65,000 tons in the rest of the world. At a rough estimate, world consumption in 1961 would be about 51 million tons, which would mean that a surplus of 4.5 million would be left over at the end of the year.

/Table III-7

Table III-7

WORLD PRODUCTION OF CENTRIFUGAL SUGAR, 1960 AND ESTIMATE FOR 1961

(Thousands of tons)

Country or region	1960	1961	Difference
Cuba	5 862	6 715 a/	853
Rest of Latin America	8 907	9 104	197
Total Latin America	14 769	15 819	1 050
United States b/	4 435	4 785	350
Philippines	1 386	1 420	34
	5 821	6 205	384
Western Europe	7 919	9 774	1 855
Soviet Union	6 100	7 100	1 000
Eastern Europe	3 302	4 194	892
	9 402	11 294	1 892
China (mainland)	1 260	1 375	115
Total	39 171	44 467	5 296
Rest of world	11 143	11 078	-65
World total	50 314	55 545	5 231

Source: As for table III-1.

a/ Cuban sugar production fixed in accordance with the Decree of 18 January 1961.

b/ United States (mainland), Hawaii and Puerto Rico.

2. Cotton

World cotton production - excluding that of Eastern Europe, China (mainland) and the USSR - was about 29.2 million bales in 1958/59 and 30.9 million in 1959/60. As the countries with a centrally planned economy produced 15.7 and 16.4 million bales in the two years respectively, total world output rose to 44.9 million bales in 1958/59 and to 47.3 million in 1959/60.

In 1958/59, Latin America's share of world production - excluding that of the countries with a centrally planned economy - was more than 20 per cent but shrank to 16 per cent in 1959/60. In the latter year, the United States, which contributed 14.6 million bales, accounted for nearly half (47 per cent) of world production (see table III-8). It was followed in order of importance by India (3.3 million bales), Egypt (2.1 million), Brazil (1.7 million), Mexico (1.7 million) and Pakistan (1.3 million).

According to an estimate made in 1958/59 by the International Cotton Advisory Committee, approximately 84 per cent of world production consists of medium-staple cotton. 13/ A high proportion of India's output is short staple, as is part of the cotton produced in Burma, Pakistan and China (mainland).

13/ Cotton is generally classified according to the length, grade and strength of its fibre. When the grade is being determined, colour, softness and presence of impurities are all taken into account. The length of the fibre is determined by the average length of a sample of raw cotton, which often gives a good idea of the strength of the thread that will be produced after the cotton has been spun. The main categories as regards length of fibre (in inches) are as follows:

Short staple	Less than 7/8
Medium staple	From 7/8 to 1 1/8
Long staple	From 1 1/7 to 1 5/16
Extra long staple	More than 1 5/16

/Table III-8

Table III-8

LATIN AMERICAN AND WORLD COTTON PRODUCTION, 1957/58-1959/60 a/

(Thousands of bales of 478 lb or 216.8 kg)

Country	1957/58	1958/59	1959/60 b/
Brazil	1 350	1 540	1 700
Mexico	2 106	2 359	1 660
Peru	501	503	550
Argentina	690	520	420
Colombia	106	150	300
El Salvador	164	180	140
Nicaragua	220	215	135
Guatemala	64	75	65
Paraguay	50	40	40
Venezuela	30	37	37
Honduras	16	14	10
Haiti	5	5	5
Others	8	11	19
Total Latin America	5 325	5 667	5 096
United States	10 960	11 500	14 550
Asia and Oceania	7 569	7 398	6 617
Africa	3 512	4 109	4 060
Western Europe	509	524	621
	27 875	29 198	30 944
Countries with a centrally-planned economy c/	13 763	15 697	16 400
World total	41 638	44 895	47 344

Source: International Cotton Advisory Committee, Cotton-World statistics, September 1960.

a/ Year beginning 1 August.
b/ Provisional figures.
c/ China (mainland), Eastern Europe (Albania, Bulgaria and Romania) and the USSR.

/Nearly all

Nearly all the cotton grown in Latin America is of the medium-staple type. Approximately 11 per cent of the total is long staple and 2.4 per cent extra long. These characteristics make it easier for Latin America to sell its cotton abroad and raise the average price received by exporter countries. Among those that produce long-staple cotton are Brazil, Mexico and Peru. Peru is the only country to grow extra-long-staple cotton on a commercial scale. 14/

(a) Production

In 1958/59, Latin American output totalled 5.7 million bales, which represented an increment of 6 per cent over the 1957/58 level. With the exception of Argentina, where floods affected approximately 20 per cent of the area sown to cotton, nearly all the major producer countries showed substantial increases.

In Colombia, for instance, production expanded by 42 per cent from 106,000 bales in 1957/58 to 150,000 in 1958/59. In Guatemala, Brazil, Mexico and El Salvador, increments of 17, 14, 12 and 10 per cent respectively were recorded, while no change took place in Peru and Nicaragua. For the reason mentioned above, Argentine production, which in 1957/58 had reached the record level of 690,000 bales, fell steeply by 25 per cent to 520,000 bales.

In 1959/60, as a result of the substantial decrease in plantings in Mexico and Central America - which led to a drop of 830,000 bales in their joint output - and of a further cut of 100,000 bales in the Argentine crop, Latin America produced 10 per cent less than in the previous year, despite increases in the Brazilian, Colombian and Peruvian crops of 174,000, 150,000 and 47,000 bales respectively.

The decline of cotton production in Mexico and Central America was chiefly due to the smaller area sown as a result of the drop in international market prices and the expectation of a further slump.

14/ In 1959/60, Peru produced 390,000, Mexico 115,000 and Brazil 68,000 bales of long-staple cotton (573,000 bales in all). Peru also produced 120,000 bales of extra-long-staple cotton.

/The cotton-

The cotton-growing area was in fact cut by 39 per cent in Nicaragua, 36 per cent in Guatemala, 28 per cent in El Salvador and 27 per cent in Mexico. In El Salvador and Guatemala, the repercussions of the reduction were partly offset by an increase in yield, which, however, was not enough to check the decline in output. Moreover, in Mexico, which is usually the principal Latin American producer, yield was 4 per cent lower than in 1958/59 (see table III-9).

On the other hand, favourable weather in Brazil and the incentive of higher minimum guarantee prices led to an expansion of 15 per cent in the area under cotton and consequently a substantial crop increment. In Colombia, the exceptional rise in output from 150,000 bales in 1958/59 to 300,000 in 1959/60, was attributable not only to the noteworthy increase of 82 per cent in the cotton crop, but also to the adoption of improved farming techniques which raised yield by 10 per cent. Colombia thus became a cotton exporter for the first time in its history.

It should be remembered that Central American yields are some of the highest in the world. In fact, Guatemala and El Salvador during 1960 recorded yields (791 and 788 kilogrammes per hectare respectively) that were exceeded only by that of Israel (1,047 kilogrammes) and were followed by those of the USSR (735), Egypt (619) and the United States (518). Nicaragua, with 594 kilogrammes, came midway between the last two countries.

(b) Consumption and trade

World cotton demand, which had been slack in recent years owing to the economic recession in certain countries, renewed its upward trend in 1959/60 as the result of the rapid growth of world population and the increase in per capita consumption in most of the major consumer countries. In this year, industrial activity stood at a high level. Cotton prices dropped slightly in relation to those for artificial fibres, but the textile mills used the record amount of 31 million bales - 6.5 per cent more than in 1958/59 (see table III-10).

/Table III-9

Table III-9

LATIN AMERICA: AREA UNDER COTTON AND YIELD, 1957/58-1959/60

Country	1957/58	1958/59	1959/60 a/	1957/58	1958/59	1959/60 a/
	Kilogrammes per hectare			Thousands of hectares		
El Salvador	891	732	788	40	53	38
Guatemala	785	583	791	18	28	18
Nicaragua	778	591	594	61	79	49
Mexico	499	495	477	916	1 033	754
Peru	482	460	464	238	245	243
Colombia	345	365	402	67	89	162
Argentina	266	202	206	641	496	463
Brazil	195	206	198	1 497	1 619	1 862
Paraguay	187	131	130	58	66	67
Average yield	492	418	451			
Total area				3 535	3 708	3 656

Source: As for table III-1.

a/ Provisional.

/Table III-10

Table III-10

WORLD CONSUMPTION OF COTTON AND END-OF-SEASON INVENTORIES, 1957/58-1959/60

(Millions of bales of 478 pounds net weight or 216.8 kilogrammes each)

	1957/58	1958/59	1959/60
Consumption			
Net importers	15.5	15.0	16.5
Net exporters	13.0	14.1	14.5
Total	28.5	29.1	31.0
Inventories			
Net importers	5.5	5.0	5.6
Net exporters	12.6	12.4	10.2
United States	(8.7)	(8.9)	(7.5)
In transit	0.6	0.3	0.6
Total	18.7	17.7	16.4

Source: As for table III-1.

/This is

This is why inventories dropped to 16.4 million bales, which is one of the smallest quantities registered in recent years, and falls short of the 1955/56 figure by nearly 6 million bales. A major part of this reduction is attributable to the considerable contraction in United States inventories (1.4 million bales) and, to a lesser degree, in those of the other net exporters. The increment in net importers' cotton stocks was 600,000 bales. During the last cotton year, United States exports increased 2.5 times over, from 2.8 million bales in 1958/59 to 7 million in 1959/60. In contrast, those of the other exporter countries decreased by 300,000 bales. Mainly as a result of the substantial growth of consumption, the total volume of world trade in cotton attained the unprecedented figure of 15 million bales (see table III-11).

Latin America's total exports, which had risen by some 900,000 bales between 1957/58 and 1958/59, reaching 3.3 million bales in the latter year, contracted by over 600,000 in 1959/60. Thus, Latin America's share in the world market dropped from 27 to 17 per cent between the last two cotton years (see table III-12). With the sole exception of Brazil, which more than doubled its exports, [15/] the external sales of all the Latin American countries declined in varying proportions. Mexico exported 505,000 fewer bales in 1959/60, which represented a 28 per cent reduction. Although quantitatively smaller, the decrease of 213,000 bales in Nicaragua's exports brought them down to a level 64 per cent below that of 1958/59. The volume exported by El Salvador fell by more than one half between 1958/59 and 1959/60, dwindling from 247,000 to 120,000 bales. Lastly, in Peru and Guatemala export contractions of 95,000 and 12,000 bales, respectively, were registered.

15/ They amounted to 500,000 bales in comparison with the 242,000 sold in the preceding year.

/Table III-11

Table III-11

WORLD COTTON EXPORTS, 1957/58-1959/60

(Millions of bales of 478 pounds net weight or 216.8 kilogrammes each)

	1957/58	1958/59	1959/60
United States			
Specially-financed exports	7.7	1.3	1.4
Commercial exports	3.0	0.5	5.6
Total exports	5.7	2.8	7.0
Other countries	6.9	8.6	8.3
World total	12.6	11.4	15.3

Source: As for table III-1.

(c) Prices

During the decade just ended, United States cotton policy exerted a powerful influence on world prices, owing to the preponderant part played by that country both in the production of cotton and in the cotton trade.

Up to 1955, United States support prices helped to maintain world market cotton quotations at a high level. In that year, the United States initiated its special export programmes with the aim of obtaining "a fair share" in the international market, and thenceforward world prices followed a downward trend, within which periods of sharp decline alternated with spells of partial recovery.

This was the case in 1958-60. In 1958, Liverpool market quotations for the most important Latin American export varieties were relatively high. In the course of 1959 prices substantially decreased, recovering in 1960 to some extent in the case of medium-staple and notably in that of long-staple cottons (see table III-13).

/Table III-12

Table III-12

LATIN AMERICA: COTTON EXPORTS, 1957/58-1959/60 a/

(Thousands of bales of 500 pounds gross weight each)

Country	1957/58	1958/59	1959/60
Mexico	1 417	1 809	1 304
Peru	402	512	417
Nicaragua	146	331	118
El Salvador	127	247	120
Brazil	215	242	500
Guatemala	55	60	48
Argentina	-	47	32
Paraguay	35	30	25
Others	18	23	5
Total Latin America	2 395	3 301	2 569

Source: United States Department of Agriculture, Foreign Agriculture Circular, Cotton, FC 12-60 (December 1960).

a/ Years beginning 1 October.

/Table III-13

Table III-13

WORLD COTTON PRICES, 1958-60 a/

(Cents per pound)

Quarterly average	1958			1959			1960		
	Mexico Matamoros 1-1/32"	Peru Pima No. 1	Nicaragua Strictly Middling 1-1/16"	Mexico Matamoros 1-1/32"	Peru Pima No.1	Nicaragua Strictly Middling 1-1/16"	Mexico Matamoros 1-1/32"	Peru Pima No. 1	Nicaragua Strictly Middling 1-1/16
I	34.67	51.06	32.58	28.30	34.01	25.72	29.05	47.27	28.67
II	33.45	42.25	31.45	28.29	35.34	27.57	29.13	47.59	28.44
III	30.56	38.08	30.16	27.86	37.43	27.53		43.82	
IV	29.85	36.29	28.01	28.96	39.98	28.73			
Annual average	32.13	41.92	30.55	28.37	36.54	27.39	29.08	46.23	28.55

Source: International Cotton Advisory Committee, Cotton World Statistics, September 1960.

a/ C.i.f. quotations, Liverpool.

Thus, the price of the Mexican Matamoros type, which had averaged 34.67 cents per pound during the first quarter of 1958, declined progressively throughout that year and the next until it reached its lowest level - 27.86 - in the third quarter of 1959. The following quarter witnessed the beginning of a phase of recovery which brought the price up to 29.13 cents in the second quarter of 1960, or 5.5 cents below the figure quoted in the first three months of 1958.

Between the first quarters of 1958 and 1959, the price of extra-long Peruvian cotton, of the Pima No. 1 type, dropped sharply from 51.06 to 34.01 cents per pound. The process of recovery began in the second quarter of 1959, and in the corresponding months of 1960 a level of 47.59 cents was reached. In the third quarter of the latter year, however, the price fell again, this time to 43.82 cents.

/(d) Prospects

(d) Prospects for 1961

Production and consumption are expected virtually to balance each other in 1961. According to provisional estimates prepared by the United States Department of Agriculture, [16] that country's output - approximately 14.3 million bales - will probably fall some 200,000 bales below that of 1960. Production in the centrally planned economies is likely to contract by some 800,000 bales, while that of the rest of the world should increase by 1.5 million. This would result in a world harvest amounting to 46.9 million bales in 1960/61, as against 46.4 million in the preceding year.

Consumption will probably be in the neighbourhood of 47.1 million bales (600,000 bales less than in 1959/60), and if demand for cotton remains at its present level, the outlook for prices is reasonably encouraging.

During the forthcoming season, Latin American production will very probably recover, at least in part, from the contraction registered in 1959/60. The area under seed in Mexico and El Salvador has been enlarged by over 20 per cent, and in the former country the harvest is expected to yield about 2 million bales. Information has been received to the effect that at Mocó, in the north of Brazil, the crop will be almost 100,000 bales larger, thanks to favourable weather conditions and to the efforts expended on improving the cultivation of this variety, and that in the south of the country there will be some increase in the area sown to cotton. In Peru and Argentina, production will probably remain at the preceding year's level. Last season's exceptional expansion of production in Colombia compelled the Government to grant the surplus an export subsidy. Current policy is therefore directed towards the restriction of credits for marginal areas and of sowings in potential cotton-growing districts.

16/ See United States Department of Agriculture, Foreign Crops and Markets, World Summaries, Crops and Livestock, 24 November 1960. The figures cited correspond to bales of 500 pounds each, gross weight.

3. Cacao

In 1959/60, world production of cacao attained the peak figure of 1,008,000 tons, about 100,000 and 220,000 tons more than in 1957/58 and 1958/59, respectively.

In the cacao year 1959/60, which ends in October, Latin American production of cacao beans accounted for 32 per cent of world output. Africa, the world's leading producer region, contributed 65 per cent.

The three most important producers are Ghana (322,000 tons), Brazil (186,000 tons) and Nigeria (154,000 tons). In 1959/60 the joint output of these three countries constituted 66 per cent of world production. Brazil's production represented 18 per cent of that of the world. Apart from Brazil, the other two major producers in Latin America are Ecuador and the Dominican Republic. The combined output of these three Latin American countries represented 80 per cent of the region's total production in 1959/60.

(a) Production

Production in Latin America in 1958/59 (308,000 tons) exceeded the 1957/58 volume by almost 5 per cent. The countries which achieved production increments comprised Brazil, Colombia, Costa Rica, Ecuador and Panama; in all the rest output remained stable or contracted slightly (see table III-14).

The rate of growth of production in 1959/60 (a little over 4 per cent) was much the same as in the preceding year. Increases were registered in Brazil and the Dominican Republic, while in Costa Rica and Venezuela output contracted. In Brazil the main harvest reached a maximum figure of 96,000 tons, while the early (temporão) crop, which at first looked equally promising, was reduced by heavy rainfall and sharp drops in temperature. Nevertheless, total output for the year amounted to 186,000 tons, the largest volume produced to date, and 38 per cent above the average for the period 1951/52-1955/56.

/Table III-14

Table III-14

LATIN AMERICAN AND WORLD OUTPUT OF CACAO BEANS, AVERAGE FOR 1951/52-1955/56, ANNUAL OUTPUT FROM 1957/58 TO 1959/60 AND FORECAST FOR 1960/61

(Thousands of tons)

	1951/52-1955/57	1957/58	1958/59	1959/60a/	Forecast 1960/61
Brazil	135.2	162.0	174.0	186.0	138.0
Dominican Republic	31.9	36.0	33.0	40.0	36.0
Ecuador	29.2	31.9	33.7	32.7	35.9
Mexico	10.5	15.3	15.0	14.0	15.0
Colombia	10.9	11.7	13.0	14.0	15.0
Venezuela	17.6	15.2	14.8	10.1	15.0
Costa Rica	7.4	8.2	11.0	10.0	11.0
Peru	4.2	4.6	4.0	4.5	5.0
Cuba	2.7	2.8	2.8	2.8	2.8
Bolivia	3.0	2.1	2.1	2.1	2.1
Haiti	1.8	1.9	1.9	1.9	1.9
Panama	1.6	1.5	1.8	1.7	1.7
Guatemala	0.9	0.7	0.7	0.7	0.7
Nicaragua	0.4	0.3	0.3	0.3	0.3
Honduras	0.1	0.1	0.1	0.2	0.2
Total Latin America	257.4	294.3	308.2	321.0	280.6
Ghana	232.3	209.8	259.5	321.9	310.0
Nigeria	105.2	89.8	142.6	154.0	150.0
Rest of Africa	153.4	158.8	163.2	177.6	183.6
Total Africa	490.9	458.4	565.3	653.6	643.6
Others b/	23.7	27.3	28.1	33.3	34.4
World total	772	780	902	1 008	959

Source: FAO, Cocoa Statistics, Vol. 3 (October 1960).

a/ Provisional.

b/ Federation of the West Indies, French West Indies, Asia and Oceania.

/Much of

Much of this success can be attributed to the favourable weather conditions prevailing in the chief producer areas. Attention must be drawn, however, to the important part played by official action in promoting measures designed to control disease and pests, expand cacao-growing and improve yields in the leading producer countries.

Brazil and Ecuador, indeed, gave a vigorous impetus to replanting activities, and much of this work was carried out on the basis of hardy and higher-yielding varieties.

The recovery of Ghana's production from the low levels recorded in 1957/58 is also largely attributable to the measures sponsored by the Government with a view to improving cultivation techniques through increased utilization of inputs. In Nigeria the entry into production of new cacao growers and the introduction of the Amazon variety contributed to the good 1958/59 harvest. In both these countries anti-pest campaigns were so successful that in 1959/60 the largest production increments were registered precisely in those areas where intensive fumigation of the cacao plantations had been carried out.

The progress made by the African producers seems to have been greater than any achieved in Latin America. Careful study of the production statistics given in table III-14 above suggests that in recent years Latin America has continued to lose ground as a producer vis-à-vis the African continent. 17/ According to authorized forecasts it seems that this trend will become more marked in 1960/61.

17/ In fact, the share of Latin America is following a downward trend, while that of Africa is slowly increasing, as can be seen from the data shown below:

	1951/52-1955/56	1957/58 a/	1958/59	1959/60
Latin America	33.3	37.7	34.2	31.8
Africa	63.6	58.8	62.7	64.8
Other countries b/	3.1	3.5	3.1	3.4

a/ A year in which African production was exceptionally low.
b/ The West Indies.

/The earnest

The earnest drive to promote cacao cultivation in other areas is a factor contributing to the dwindling importance of Latin America as a producing area. In the West Indies for example, efforts are being made to introduce cacao or to improve the quality and quantity of crops. Production in Papua and New Guinea, which was intended to supply the Australian market, is booming. The first shipments of cacao plants have recently arrived in the Fiji Islands. Furthermore, efforts are being made to introduce cacao into Sarawak, North Borneo, Zanzibar and the Solomon Islands.

(b) Consumption and trade

It is estimated that world cacao consumption in 1960 was of the order of 892,000 tons, representing an increase of 42,000 tons over 1959 and 17,000 over 1958. This 1960 consumption level was, however, below the 920,000 tons recorded in 1957. This recovery seems to show that the unfavourable effects of high prices on consumption in 1958 have now disappeared.

The consumption of cacao is concentrated in the highly industrialized countries where income levels are high. In 1960, the United States and Western Europe between them accounted for 69 per cent of total world consumption. The amount of cacao ground in the United States reached the figure of 215,000 tons, which made that country the world's larger consumer. The United States was followed at some distance by the Federal Republic of Germany (100,000 tons), the Netherlands (80,000 tons), the United Kingdom (72,000 tons) and France (51,000 tons).

Latin America considered as a whole occupies an important place in world cacao consumption as the amounts ground there in 1960 are estimated at 137,000 tons or approximately two fifths of output for that year. Distribution of consumption as between the different Latin American countries is, however, somewhat uneven. Consumption in Brazil (71,000 tons), accounts for 52 per cent of the regional total and added to consumption in Colombia (22,000 tons), the Dominican Republic (12,000) and Mexico (9,400) accounts for 84 per cent of total Latin American consumption (see table III-15).

/Consumption in

Consumption in Africa is very low and in 1960 it was estimated at only 19,000 tons. That means that in practice nearly all African output is for export.

Although world exports in 1959 (746,000 tons) were 14 per cent higher than in 1958, Latin American shipments abroad declined by 11 per cent. This was due mainly to the fall in Brazilian and Dominican exports (see table III-16).

In 1960, exports from certain Latin American countries, for which only incomplete figures are available, give grounds for believing that there was a substantial increase as compared with 1959. For instance, Brazilian exports which were 41,000 tons in the first seven months of 1959, exceeded 64,000 tons in the first seven months of 1960. The expansion between the same two years for Dominican exports was somewhat more than 4,000 tons.

Exports from Ecuador, Panama and Venezuela were also larger, although less strikingly so. These trends, together with recent trade information, seem to indicate that Latin American cacao exports have recovered from the sharp fall which occurred in 1959 and that they may well exceed the highest figures reached in the last decade.

(c) Prices

Cacao prices reached their highest level in recent years in the second quarter of 1958 when the average price, warehouse in New York, of Accra cacao reached 46.4 cents per pound while Bahia cacao was quoted at 45.4 cents (see table III-17). 18/

The average annual prices for both varieties in 1958 were 44.3 and 43.3 cents per pound respectively and since then, both have been dropping. In 1959, the average annual quotations for the two varieties (36.6 and 35.4 cents) declined by 17 and 18 per cent respectively, while average prices in 1960 fell by 36 and 38 per cent as compared with 1958. These price falls were closely related to the substantial increases in world

18/ The peak of 49 cents per pound was reached in June 1958 for cash payments for Accra cacao in New York.

Table III-15

VOLUME OF CACAO BEANS GROUND IN LATIN AMERICA AND THE WORLD 1958-60 AND FORECAST FOR 1961

(Thousands of tons)

	1958	1959	1960 a/	Forecast 1961
Brazil	55.0	65.0	70.8	51.6
Colombia	18.0	21.6	22.0	23.0
Dominican Republic	10.1	11.6	12.0	12.0
Mexico	9.0	9.0	9.4	10.0
Argentina	8.5	3.6	5.0	5.0
Ecuador	4.9	4.8	5.0	5.2
Peru	4.5	4.5	4.5	4.5
Bolivia	2.1	2.1	2.1	2.1
Venezuela	1.5	1.5	2.0	2.3
Cuba	2.0	2.0	2.0	2.0
Guatemala	0.7	0.7	0.7	0.7
Chile	0.6	0.6	0.7	0.7
Uruguay	0.6	0.6	0.5	0.5
Total Latin America	117.5	127.5	136.7	119.6
North and Central America b/	225.7	219.9	230.9	241.5
United States	(209.6)	(205.1)	(215.0)	(225.0)
Western Europe	401.1	396.6	407.5	420.8
Federal Republic of Germany	(90.0)	(95.0)	(100.0)	(102.0)
Netherlands	(63.6)	(73.7)	(80.0)	(80.0)
United Kingdom	(96.0)	(74.1)	(72.1)	(76.2)
France	(53.8)	(49.8)	(51.0)	(53.0)
Eastern Europe and USSR	48.3	59.9	66.7	73.9
Africa	16.6	18.4	19.1	26.6
Asia	11.8	14.3	16.4	18.7
Oceania	11.8	13.3	14.5	15.0
World total	833	850	892	916

Source: FAO, Cocoa Statistics, Vol. 3 (October 1960).

a/ Preliminary.

b/ United States, Canada, Jamaica, etc.

/Table III-16

Table III-16

EXPORT OF CACAO BEANS, AVERAGE FOR 1952-56, ANNUAL FIGURES FOR 1958-59 AND CERTAIN MONTHS OF 1959-60

(Tons)

	1952-56	1958	1959	Months	1959	1960
Brazil	107 132	103 435	79 577	I-VII	40 864	64 388
Dominican Republic	21 564	24 096	21 722	I-V	8 956	13 632
Ecuador	25 846	22 150	28 540	I-VIII	23 055	24 443
Mexico	2 512	5 033	5 393	I-IV	3 222	2 269
Venezuela	16 645	13 605	10 713	I-VII	9 321	10 067
Costa Rica	8 113	7 685	11 522	I-VI	4 905	4 772
Peru	42	239	26		...	...
Cuba	396	554	851 a/		...	...
Bolivia	3	91	-		...	...
Haiti	1 853	1 889	...		...	...
Panama	2 042	1 270	1 680	I-III	559	660
Guatemala	337	552	...		...	...
Nicaragua	121	102	184		...	...
Honduras	6	16	...		...	...
Total Latin America	186 612	180 717	160 208		90 882	120 231
Ghana	224 154	200 494	254 216	I-IX	204 388	222 740
Nigeria	106 343	89 050	145 096	I-VIII	105 788	108 720
Rest of Africa	160 993	150 956	163 078		98 804	98 568
Total Africa	491 490	440 500	562 390		408 980	430 028
Rest of the world b/	20 779	22 277	23 237		15 928	18 611
World total	698 900	643 500	745 800		515 900	568 900

Source: FAO, Cocoa Statistics, Vol. 3 (October 1960), and Supplement for October 1960.

a/ Nine months.

b/ Federation of the West Indies, French West Indies, Surinam, Asia and Oceania.

/Table III-17

Table III-17

INTERNATIONAL PRICES OF CACAO BEANS, 1958-1960 a/

(Cents per pound)

		1958		1959		1960	
		Accra	Bahia	Accra	Bahia	Accra	Bahia
Quarterly average	I	43.4	42.2	37.6	36.1	28.6	27.9
	II	46.4	45.4	37.3	37.2	28.3	26.1
	III	45.9	45.1	37.3	35.1	28.6	26.8
	IV	41.5	40.6	34.0	33.0	27.8b/	26.1b/
Annual average		44.3	43.3	36.6	35.4	28.5	26.7

Source: FAO, Cocoa Statistics, Vol. 3 (October 1960).

a/ Cash warehouse prices in New York.

b/ Gill & Duffs Ltd., Cocoa Market Report N° 132 (6 January 1961).

harvests in 1958/59 and 1959/60. It should be added that, in the latter year, world output exceeded world consumption by 116,000 tons, the latter being estimated at 892,000 tons.

(d) Outlook

At its October 1960 meeting, the FAO Cocoa Study Group estimated that world cacao bean output in 1960/61 would be of the order of 959,000 tons or 49,000 tons less than in the preceding year (see table III-14). This forecast rests mainly on the supposition that there may be a reduction of 25 per cent in the main Bahia crop owing to bad weather and at the same time smaller drops in Ghana and Nigeria. More recent information indicates that output in Ghana and Nigeria will probably be 26 and 16 per cent higher than in 1959/60, while Brazilian production will remain at the aforementioned level. In view of this more recent information, there is reason to suppose that the next crop may well exceed 1 million tons.

/Accordingly, cacao

Accordingly, cacao prices on the New York market continued to move steadily downwards during October, November and December 1960, reaching the lowest level since the end of the war. At the end of the year, both Accra and Bahia cacao were quoted on the New York market at 24.11 cents per pound.

Note: In its final version this chapter of the Survey will contain further sections devoted to an analysis of the position of other commodities, including coffee, cotton, maize and meat.