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THE INDUSTRIAL DEVELOPMENT OF URUGUAY

prepared by the
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and submitted by the secretariat of the
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E X P L A N A T O R Y N O T E

Resolution 250 (XI) of 14 May 1965, adopted by the Economic Commission for Latin America (ECLA) at its eleventh session, requested the Latin American Governments "to prepare national studies on the present status of their respective industrialization processes for presentation at the regional symposium". With a view to facilitating the task of the officials responsible for the national studies, the ECLA secretariat prepared a guide, which was also intended to ensure a certain amount of uniformity in the presentation of the studies with due regard for the specific conditions obtaining in each country.

Studies of the industrial development of fourteen countries were submitted to the Latin American Symposium on Industrial Development, held in Santiago, Chile, from 14 to 25 March 1966, under the joint sponsorship of ECLA and the Centre for Industrial Development, and the Symposium requested ECLA to ask the Latin American Governments "to revise, complete and bring up to date the papers presented to the Symposium".

The work of editing, revising and expanding the national monographs was completed by the end of 1966 and furthermore, two new studies were prepared. The ECLA secretariat attempted, as far as possible, to standardize the presentation of the reports, in order to permit comparison of the experience of the different countries with regard to specific problems, particularly in the field of industrial policy.

The national studies on industrial development, to be presented to the International Symposium relate, in alphabetical order, to the following countries: Argentina, Bolivia, Brazil, Central America, Chile, Colombia, Cuba, Ecuador, Guyana, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela.

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NOTE

The preparatory period for the Latin American Symposium on Industrial Development coincided with that in which the Investments and Economic Development Commission (Comisión de Inversiones y Desarrollo Económico) of Uruguay was preparing the Economic and Social Development Plan for submission to the Government. It was not possible, therefore, to undertake a special study which would exactly fulfil the requirements of the outline for preparation of national reports.

On the advice of the organizers of the Symposium, the elements of the recently formulated Industrial Plan have been abstracted, and its contents restructured so as to adapt them as far as possible to the aforementioned outline.

/Chapter I

Chapter I

HISTORICAL SUMMARY

The evolution of Uruguayan industrial production in the years between the end of the war and the present day falls into two clearly defined periods. The first, which lasted from 1945 to 1957, was characterized by dynamic industrial activity, with a cumulative annual growth rate of production of 7.1 per cent, accompanied by a general process of development in the economy.

All industries expanded under the influence of a rising internal demand produced by increased income and improved income distribution. At the same time, the import substitution process for consumer good was intensively sustained. Exports, though growing rapidly in the early years of this period owing to the supply needs of the Western European markets and reaching an exceptional peak at the time of the Korean war and of the first stages of the cold war (1950-1953), subsequently came to a standstill, and decreased towards the end of the period.

Industry in this period was increasing its employment, and provided jobs for most of the people displaced from the rural area into urban zones by the increased mechanization of agricultural operations.

The second period, beginning in 1958, has in contrast been characterized by the stagnation or recession of the industrial sector and of the economy as a whole.

The contribution of industrial activity to the economy as a whole decreased from 25.56 per cent in 1957 to 24.94 per cent in 1963. The decrease of the industrial product thus was greater than that of the gross domestic product.

Employment in industry registered a similar fall; after reaching a peak of about 210,000 persons it fell to 194,000 in 1963, according to the census made in October of that year. The causes which produced these changes from the previous period can be analysed through their effects on the stagnation of exports of industrial products, the slackening of the import substitution process, and the decrease in internal demand.

/1. <u>Stagnation</u>

1. Stagnation of exports

The evolution of exports of traditional goods should be analysed separately from that of other industrial goods.

(a) Traditional goods

(i) Meat. Over the long-term production of both beef and mutton has decreased, which, combined with a constant increase in internal consumption, has diminished exportable surpluses. At the end of 1963 several factors seem to have arisen to alter this trend; nevertheless 1964 should be considered an exceptional year.

(ii) Hides. Although production of the raw material largely corresponds to meat production, industrial production does not, as large numbers of untanned hides are exported. The failure of tanned hides exports to grow can be attributed to obstacles put up by the importing countries, to faulty economic policy, to failure to introduce technological innovations, and to ignorance of the possibilities of this industry on the part of the entrepreneurs.

(iii) Wool. Raw material has not constituted any obstacle to an increase of textile exports, since most of the production of wool leaves the country unprocessed. The enterprises of this sector seem to have difficulty in financing seasonal sales' purchase of supplies for the whole year ahead. The export trade has also been damaged by import restrictions on the part of the wool importing countries and by low efficiency and productivity of the industry, especially the branches manufacturing the more elaborate types of product.[1/]

(iv) Flax. The problem here is the shortage of raw material for linseed oil manufacture which is apparently due to the fact that the price of the plant is losing ground relative to other crops for which the same land can be used.

(b) Non-traditional goods

In the case of non-traditional goods a series of factors have been operative in preventing the diversification and increase of exports.

1/ "The textile industry in Latin America. IV. Uruguay."ECLA.

/(i) The

(i) The damaging effects of rigid rates of exchange maintained in face of constant increases in internal costs;

(ii) The heavy social charges carried by many industries;

(iii) Lack of study of external markets for traditional and new exports with regard to the prospects they hold for Uruguayan products;

(iv) The insufficient sizes of enterprises, which prevent them from producing at competitive costs;

(v) Use of obsolete techniques;

(vi) Lack of uniformity in production;

(vii) Poor entrepreneur quality with regard to industrial organization and the development of aggressive export policies;

(viii) The lack of resources to finance exports and provide credits for foreign purchasers.

2. Slackening of the substitution process

The present import structure for industrial products shows that over 80 per cent consist of products of the basic metal, metal-transforming, metallurgic, electrical machinery, transport material, chemical products, paper and food products industries: this makes obvious the difficulty of making further advances in the substitution process:

(a) In the non-durable products heading the only substitution possible is that of sugar, for which large investments concentrated in a small number of establishments would be needed.

(b) As regards durable products, the process has stopped short of those which would need larger scales of production than can be absorbed by internal consumption.

(c) As regards raw materials and intermediate goods, it has become feasible to substitute certain important items such as newsprint, pig iron and, in the more remote future, light shapes; but large, concentrated investments and several preliminary steps will be needed in each of these cases, which means that the projects will take a long time to come into effect.

The following factors have been mentioned as obstacles to the process in this type of goods:

/(i) The

(i) The narrowness of the internal market, which is smaller than the optimum production scales of many of the goods;

(ii) Lack of research into natural resources;

(iii) Lack of knowledge of technological processes in which domestic might be used instead of imported raw materials;

(iv) As regards import substitution of machinery and equipment there are several special obstacles to carrying out the process:

- the small demand for equipment for serial manufacture;
- lack of the proper infrastructure;
- insufficient or ineffective protection of manufacture of non-serial equipment capable of being produced by domestic industry;
- lack of an incentives policy for import substitution of parts and sub-units of complete equipment;
- inability to compete with the financial facilities provided by foreign manufacturers.

3. Decrease of internal demand

The decrease of internal demand is related to the general decline of the economy.

The chief causes of this decline may be outlined as follows:

(a) The inability of the agricultural sector to increase supplies of its products, combined with decreased production of certain important items, such as meat.

(b) As a result of the above, decreases in the value added, in employment and in the country's capacity to produce industrial goods for export.

(c) The maintenance of rigid rates of exchange, which has undermined the country's capacity to export industrial products and has at the same time encouraged the growth of imports by lowering the prices of foreign relative to domestic products in the case both of controlled imports and of the commodities involved in unregistered trade with neighbouring countries.

(d) The absolute decrease of agricultural production since 1956, which has necessarily decreased that sector's demand for industrial products.

/(e) The

(e) The inflationary process, which has strongly influenced the country's whole composition of incomes and by thus altering consumption patterns has had profound effects on the structure of demand for industrial goods. Consumption, especially of durable goods, has been greatly affected by price rises and through it the demand of large sections of industry has been modified.

(f) A serious crisis has occurred in the building industry as is fully described in the Housing Plan; this had general causes lying in the inflationary process mentioned above and was also connected with the credit restrictions of the Mortgage Bank.

The building crisis had innumerable effects on the whole of final and intermediate industrial demand.

/Chapter II

Chapter II

RELATIVE IMPORTANCE, STRUCTURE AND GENERAL CHARACTERISTICS OF MANUFACTURING INDUSTRY

1. Contribution of the gross industrial product to the total gross product

In 1963 the volume of the gross industrial product was 5,617 million pesos (409.9 million dollars), within a gross domestic product of 22,518 million pesos (1,643.3 million dollars).[1/]

The degree of industrialization, expressed as a relation between these values, was thus 24.94 per cent, which is lower than that of other countries of the same income per inhabitant as Uruguay's (approximately 600 dollars a year). In Uruguay's case, however, the industrial contribution should be judged in the light of two facts: first, it has high productivity per person employed in the agricultural sector only 21 per cent lower than the average for the whole economy - as a result of its great wealth of agricultural land; second, it possesses a very highly developed services sector which absorbs labour unable to find employment in other sectors, thus decreasing the relative importance of the latter.

2. Structure of the industrial product

The structure of the gross industrial product has undergone substantial long-term modification: the traditional industries (food, beverages, tobacco, textiles, wearing apparel, wood, furniture, leather) fell from 70.2 per cent of the total in 1936 to 57.6 per cent in 1963; this is due to the rapid growth of such new industries as chemicals, petroleum derivatives, electrical goods and transport material.

1/ Rate of exchange for 1963: 1 dollar = 13.70 pesos.

/In 1963

In 1963 the industries making the largest contribution to the total value added of the sector were food products and beverages, textiles, transport material, and chemical products, together accounting for 62.1 per cent of the total.

It is somewhat remarkable that though the textile industry in Uruguay is traditional, it is also dynamic: its contribution to the gross industrial product rose from 7.9 per cent in 1936 to 16.8 per cent in 1963, as a result of the development of production of tops and yarns for export.

Table 1 gives the productive structure of the industrial sector as a whole for 1963, according to destination.

Table 1

URUGUAY: DESTINATION OF INDUSTRIAL PRODUCTION

(Percentages)

Consumption			Intermediate demand	Investment	Exports	Total
Non-durable	Durable	Total				
41.8	7.4	49.2	39.6	0.6	10.6	100.0

It can be seen that domestic production of capital goods has little importance while the industries producing goods for direct consumption (e.g. food and textiles) occupy an important position, as also do those same industries as producers of goods for intermediate use. This shows that the industrial structure is oriented primarily towards goods for immediate consumption and products directly related to them.

/3. Concentration

3. Concentration of production

The most recent data available are those of the industrial register of 1960, according to which of 26,366 enterprises in the country 81.2 per cent employed less than 4 workers - or less than 20 per cent of the total active working population -, while 0.8 per cent each employed 100 or more and represented 50 per cent of the total production of the sector.

The concentration of production in terms of size of establishment was different in the different branches: in some cases, such as tobacco, textiles, paper, rubber and petroleum derivatives, over 80 per cent of production was carried out by enterprises each employing more than 50 workers; in others, such as wood, furniture and transport material, over 40 per cent of production was produced by establishments each employing less than 20 workers, and in the remaining branches it was distributed among establishments of all different sizes. There are no grounds for supposing there to have been any substantial changes in the succeeding years.

4. Characteristics of foreign trade with reference to the manufacturing sector

(a) Imports

Imports of industrial products represent a very large proportion of Uruguay's total imports. Their evolution has roughly followed that of the country's capacity to import. In 1963 they represented 74.4 per cent of total imports.

Historically they have growm more rapidly than the total in periods of expanding imports and decreased more rapidly in periods of contracting imports. The decreases have chiefly occurred in consumer and capital goods, while imports of industrial raw materials have been kept as near as possible to their previous level in order to avoid repercussions on employment. (See table 2.)

/Table 2

Table 2

URUGUAY: SHARE OF INDUSTRIALLY PRODUCED IMPORTS IN TOTAL IMPORTS, 1942-1963

(Millions of dollars at 1963 prices c.i.f.)

Year	A Manufactured imports	B Total imports	C Coefficient of industrial imports (A/B)
1942	84.2	112.8	74.6
1943	65.1	95.7	68.0
1944	69.6	97.2	71.6
1945	93.6	129.6	72.2
1946	132.0	172.2	76.7
1947	175.5	235.0	74.7
1948	173.8	232.6	74.7
1949	157.8	203.5	77.5
1950	189.9	246.9	76.9
1951	250.2	306.1	81.8
1952	199.5	227.0	87.9
1953	140.9	206.6	68.2
1954	221.8	293.5	75.6
1955	168.8	233.4	72.3
1956	137.6	195.5	70.4
1957	171.9	229.6	74.9
1958	78.1	131.2	59.5
1959	109.3	170.4	64.1
1960	136.6	220.5	62.0
1961	154.3	207.2	74.5
1962	178.9	237.8	75.2
1963	130.2	175.0	74.4

Source: Investments and Economic Development Commission (CIDE) from basic information provided by the Bank of the Republic (Banco de la República Oriental de Uruguay).

/Analysis of

Analysis of the relation between imports of industrial products and the gross value of industrial production reveals a large decrease in the import coefficient, which must be interpreted as a loss of ground by imports in the supply of industrial goods; and since at the same time the gross value of industrial production has been increasing, this decrease can be attributed to the intensive import substitution process which has been carried out since the war. (See table 3.)

Table 3

URUGUAY: COEFFICIENT OF IMPORTS IN THE SUPPLY OF INDUSTRIAL PRODUCTS

Year	A Triennial average of industrial imports in millions of dollars 1963	B Gross value of industrial production in millions of pesos	C Coefficient of imports (A/B)
1943	73.0	6 209.9	11.76
1946	133.7	8 072.9	16.56
1949	173.8	9 540.7	18.22
1952	196.9	11 361.3	17.33
1955	176.0	14 071.1	12.51
1958	119.7	15 073.2	7.94
1961	156.6	14 438.1	10.85

(b) Exports

In the long run exports of industrial products (expressed in constant dollars of 1963) have not shown any growth trend either in absolute or in relative terms. The relation between the annual values of exports and industrial production values has tended to decrease, reaching its lowest point between 1957 and 1960, but showing the beginnings of a reversed trend in the following three years. (See table 4.)

/Table 4

Table 4

URUGUAY: SHARE OF INDUSTRIAL PRODUCTS IN TOTAL EXPORTS, 1942-1963

(Millions of dollars at 1963 prices)

Year	Industrial exports	Total exports	Percentage of industrial exports in total exports	Gross value industrial production (Millions of pesos 1963)	Dollars of industrial reports to thousands of pesos of gross value industrial production a/
1942	74.1	124.2	59.66	6 240.0	11.9
1945	125.1	181.0	69.12	6 905.9	18.1
1948	88.9	157.3	56.52	8 744.6	10.2
1951	94.2	151.0	62.38	11 582.3	8.1
1954	120.7	202.8	59.52	14 448.9	8.4
1957	76.9	118.1	65.14	15 621.6	4.9
1960	88.7	127.1	69.79	15 143.9	5.9
1963	106.1	165.2	64.23	14 477.9	7.3

Source: CIDE, from information of the Bank of the Republic.

a/ As between 1 dollar of industrial exports and 1 000 pesos of domestic production.

The composition of industrial exports has not been diversified, 95 per cent consisting of traditional products, meat, processed wool, tanned leather and linseed oil.

5. Financing

There is no complete information on this subject, but annex 2 gives a summary of the 1961-1963 study of the balance sheets of 56 industrial stock companies, which together represent 18 per cent of the production value of the sector.

/6. Industrial

6. Industrial employment

In the long run the industrial sector has constituted a growing source of employment. In 1959-1960 it accounted for about 22 per cent of the total employment of the country. In 1960 the absolute number of workers in this sector was 205.3 thousand, as against 913.8 thousand in the economy as a whole. Although statistics are not available for every year, it is assumed that since that date industrial employment has been decreasing, falling to 194.0 thousand in 1963, according to the census made in that year.

It appears from a comparison of the results of the industrial survey made by CIDE with earlier information that in the long run the structure of industrial employment has followed the general evolution of the productive structure. (See table 5.)

Table 5

URUGUAY: STRUCTURE OF INDUSTRIAL EMPLOYMENT

(Percentages)

Industrial division	1936	1954	1963
20-21	37.5	28.6	26.9
22	1.7	0.6	0.5
23	10.0	15.2	10.4
24	11.1	8.1	13.9
25-26	6.0	5.8	5.8
27-28	5.9	5.1	3.7
29	1.9	1.3	1.1
30	1.2	1.9	1.5
31	3.2	4.4	4.2
32	-	2.3	3.9
33	5.5	5.6	3.6
34-35-36	6.6	7.6	9.0
37	1.0	3.4	3.9
38	5.9	6.6	8.6
39	2.5	3.5	3.0
Total	100.0	100.0	100.0

Source: CIDE.

/The decrease

The decrease of industrial employment is obscured by several factors: the industrial survey just mentioned shows that there is disguised employment, calculated at 12 per cent of the industrial total for 1963.

7. Location

The industrial register mentioned above - which presents a picture that has not since then changed significantly - gave 52.1 per cent of industrial establishments as operating in Montevideo.

This situation is the result of a combination of factors favourable to the location of industries in the capital of the country, the most important of which are its being the largest centre of consumption, having the main port for importing industrial raw materials and exporting industrial products and possessing the combined benefits of social, administrative and financial services and of readily available power, water, communications, transport, trained manpower, etc.

/Chapter III

Chapter III

SPECIFIC INDUSTRIES

1. Introduction

This chapter gives a summary of studies carried out by CIDE on the specific problems of certain industries that were intended to provide the basis for individual programmes, whose targets have now been made part of the overall targets of the industrial sector. On account of a number of difficulties such as shortage of resources, the complexity of the problems existing in certain industries, etc., the scope of this work has been limited; subsequent analyses will enable further industrial groups gradually to be included and present studies carried to a deeper level.

2. Meat industry

(a) Supply

The quantities of its exports and the volume of employment which it provides have given this industry an important role in the country's development. In view of the shortage of statistics on the development of production in this sector, livestock production will be considered as being a relevant index of supply.

The heading meat represents a large proportion of agricultural production, even though in the long run it has declined; it fell from 51 per cent of the sector's total in the period 1935/1937 to only 33 per cent in 1962/1963. Beef is the chief item of the heading representing 80 per cent of it.

/The main

The main problems affecting this industry as regards raw material supplies have been: the stagnation of livestock production, which for sheep and beef cattle taken together has been decreasing at a rate of 1.6 per cent a year per inhabitant between 1935/1937 and 1961/1963, and its seasonal fluctuations.

The main factors operative in this situation are:

(i) Problems over the use of land; less than 200,000 hectares have been made into permanent artificial or improved natural pastures, out of a total of 15 million hectares used for livestock raising.

(ii) Inadequate livestock feeding which, by producing fluctuations in production creates seasonal cycles of work in the industry. Thus the activity of the meat packing plants declines sharply between August and November resulting in under-utilization of installed capacity and increased production costs.

(b) Efficiency of the industry

(i) Installed capacity. In this connexion a distinction can be made between packing plants and abattoirs. Although there is no precise line of demarcation between the two activities, packing plants may be classified as the establishments which carry out the complete cycle of operations from slaughtering to manufactured products. They also operate under better sanitary conditions, which is a consideration of some weight in the buyers' markets. Slaughter carried out in the packing plants would make for use of a proper system of classifying and quality assessment, as also for increased production of cut meat.

Installed capacity for slaughtering is estimated at 2,922,500 head a year for 1964. Of this 1,775,000 head belongs to eight installed packing plants, 180,000 to packing plants in process of expansion, 467,500 to abattoirs licensed to export, and 500,000 to the estimated capacity of abattoirs producing only for internal consumption. This capacity is considerably greater than present needs as determined by the number of animals ready for slaughtering.

/It is

It is estimated that in 1964 - a year in which slaughter of beef cattle was very high - 51 per cent of capacity was used. The existence of idle capacity is related to the shortage of raw material, which is a consequence of the decline of livestock production and of its seasonal fluctuations.

(ii) Size of establishments. Although size, in view of its effects on the efficiency of this sector of industry - through its connexion with the technical processes used, with location, and with methods of livestock production and availability of resources for industrial use -, is a factor of considerable importance, there is no information available on which a definition of the optimum size could be based. The lack of evidence in this case proves the need for a penetrating study, especially seeing that size is one of the most important factors to be taken into account in defining the future strategy for the development of this industry.

(iii) Location. Study of the location of the establishments shows that the market is the decisive factor in this matter. Since Montevideo is the main centre of consumption and port of embarkation, most of the establishments have been situated in this or neighbouring departments. The siting of establishments in the latter, is due, however, to the difference between wages and tax burdens in these areas and those which have to be paid by the large-scale packing plants of Montevideo itself; this is an irrational factor in location which must be eliminated.

Technical study of location, including questions of the costs and use of the transport system, is one of the forms of research which should be undertaken in order to define a development policy.

(c) Analysis of demand

Internal consumption of meat has increased as a result of population growth and rising incomes, and this, combined with the stagnation of production, has caused exportable surpluses to decrease. (See tables 6 and 7.)

/Table 6

Table 6

URUGUAY: DESTINATION OF THE SLAUGHTER OF BEEF CATTLE

(Percentages)

Years	Exports	Internal consumption	Slaughter
1935/1937	45.5	54.5	100
1950/1952	36.9	63.1	100
1960/1962	29.1	70.9	100

Source: CIDE, with data of the Bank of the Republic.

Table 7

URUGUAY: ANNUAL AVAILABILITY OF MEAT PER PERSON

(Kilogrammes)

	1950/1952	1959/1961
Meat	123.4	114.2
Beef	82.9	79.1
Mutton and lamb	26.4	20.4
Others	14.1	14.7

Source: CIDE.

The downward trend of exports brought about a drop in Uruguay's share in the world beef market. It is worth pointing out, however, that, while the United Kingdom has been the traditional buyer, new markets have been opened up in the last few years, especially in 1964 when 16 countries each bought over one million dollars worth of Uruguayan meat.

As external demand is growing and Uruguay is as yet a marginal supplier, with only 4 per cent of the world market, future prospects are bright; but if anything is to come of them exportable surpluses must be

/increased by

increased by expanding livestock product, making the seasonal fluctuations less abrupt and partly substituting poultry and fish for meat in internal consumption.

There is at present no policy concerned with the meat export trade which means that:

(i) There is no guarantee of the continuity of supplies over the whole year, owing to the seasonal character of production;

(ii) There is no established policy of classification and quality assessment of meat which would enable the best qualities and cuts to be reserved for export;

(iii) There is no adequate trade representation in the chief buying countries, or any policy for finding new markets;

(iv) There are shipment difficulties, from lack of a refrigeration fleet.

(d) Internal market and marketing

Cattle transactions may be carried out in the ranches, in rural fairs or in the National Cattle Market. The first method is convenient for the producers since it eliminates commissions and other expenses, but may have the shortcoming that the sellers do not know the prices obtaining in the market.

All animals slaughtered in establishments situated in Montevideo must pass through the Tablada Norte registration office, which, however, does not effectively fulfil the function of a guide to prices and gives rise to unnecessary expenditure.

The present price system, which functions on the basis of the animal's type, destination and approximate yield, provides no incentive for progressive producers and does not discourage the raising of animals of excessive weight and age. It should be modified by adopting criteria based on classification of cattle and quality assessment of carcasse meat.

The problem of marketing is of the utmost importance. While National Meat Packing (Frigorífico Nacional) has exercised enormous influence by providing a standard of cattle prices, the large number of its responsibilities has made it run at a loss; it should therefore be reorganized so that it can operate more efficiently and fulfil its functions without needing state

/subsidies. Ignorance

subsidies. Ignorance of the costs of livestock production, lack of statistical information on transfers of income, the changes in relative prices between the meat industry and livestock production and the number of different factors involved in determining livestock prices make it difficult to assess how far it has been successful in supporting them.

To sum up: the obstacles to the increase of livestock production and the factors responsible for its seasonal fluctuations must be eliminated. The installed capacity of the industry is large enough, but should be reorganized in conformity with the results of studies on technology, size and location in order to maximize its efficiency by methods consistent with conditions in the country.

(e) Projections of production, supply and demand

The projections of production are based on the possibilities of improving both its total values and its structure opened up by the livestock programme. It is thus estimated that production will grow at a rate of 35 per cent during the period 1963-1974.

As regards demand, a large increase both in the volume of exports and in their percentage of total production (from 28 per cent in 1963 to 44 per cent in 1974) is thought feasible. This increase will involve besides a total growth in the supply of meat, the attainment of a target of reduced meat consumption per inhabitant - now 75.4 kilogrammes - according to which there should be 6 per cent substitution by fish and 1 per cent by poultry meat. Intermediate demand from establishments manufacturing pigmeat products have also been taken into account, and the whole results are condensed in table 8.

Exports will grow at a cumulative rate of 8 per cent a year. It is also expected that, as a result of an improvement in the quality of the livestock, the percentage of chilled meat in total exports will rise from 38 per cent in 1963 to 49 per cent in 1974. (See table 9.)

/Table 8

Table 8

URUGUAY: PROJECTIONS OF CONSUMPTION a/ OF BEEF, MUTTON AND LAMB AND PIGMEAT

(Millions of 1963 dollars)

Years	Beef and sub-products	Mutton and lamb	Pigmeat	Total
1963	73.6	2.9	18.1	94.6
1965	75.6	3.0	19.0	97.6
1967	76.5	3.2	20.3	100.0
1970	76.4	3.2	22.5	102.1
1974	77.4	3.3	26.2	106.9

Source: CIDE.

a/ Does not include consumption in situ.

Table 9

URUGUAY: PROJECTIONS OF MEAT EXPORTS

(Millions of 1963 dollars)

Years	Beef		Mutton and lamb		Value of sub-products	Total value
	Thousands of tons carcasse meat	Value	Thousands of tons carcasse meat	Value		
1963	102.1	29.0	1.1	0.4	3.8	33.2
1965	110.0	31.8	6.9	2.3	6.2	40.3
1967	142.5	41.4	4.5	1.5	6.5	49.4
1970	164.4	48.1	0.5	0.2	7.0	55.3
1974	226.8	67.0	4.2	1.4	9.6	78.0

Source: CIDE.

/(f) Projection

(f) Projection of investments

The ten-year plan forecasts a slaughter of 2,100,000 head in 1974, which represents 70 per cent of present installed capacity for slaughter. The efficiency of the industry can therefore be improved, as long as present capacity is not enlarged, by increasing installed capacity utilization. Nevertheless a certain number of investments in improving productivity should be made; at the national level these should take the form of replacement investments directed in such a way as to modernize existing plants and reduce the proportion of slaughter carried out in abattoirs, and should be planned on the basis of the results of the research which will be made into questions of suitable size, technological processes and location.

(g) Alternatives of policy making

The lack of suitable information and the need for policy making in this field make it appropriate to present below certain alternative policies for maximizing the efficiency of the meat industry.

(i) First alternative. Certain sections of opinion consider that efficiency could be increased by abolishing the monopoly of slaughtering for the supply of Montevideo held by the National Packing Plant, because free trade would then eliminate the most inefficient enterprises.

This measure involves certain disadvantages. The abolition of the monopoly would be bound to bring with it an increase of installed capacity as a result of the expansion of the establishments which would begin to engage in processing meat for the supply of Montevideo. From the national point of view this would mean a waste of resources needed for use in other sectors. The investments needed to increase efficiency ought not to have the effect of increasing capacity.

Secondly, the competition for profits on the part of the establishments undertaking the supply of the Montevideo market might have harmful effects on the exportable surpluses, particularly in respect of their quality.

Lastly, the structure of supply for Montevideo might take on a monopolistic or oligopolistic form which could create livestock price levels detrimental to the producing and/or consuming sectors.

/(ii) Second

(ii) Second alternative. Other sections consider that state intervention should be increased to the extent of nationalizing the industry, which would be justified by its enormous importance for the country.

This would encourage the producers to concentrate on good quality livestock, would give protection to consumers and would at the same time enable the targets envisaged in the plan to be reached. It would also result in maximization of packing plant slaughter and hence in optimum use of subproducts and in improved conditions of hygiene; the State could ensure that technical processes were modernized, sizes of establishments adapted to the conditions of the country, and the most suitable locations chosen for them.

To carry out this alternative there would have to be a state organization for centralizing meat policy and the state enterprises would have to operate on an efficient and rational basis.

(iii) Third alternative. Other sections consider that state intervention should be partial and be exercised indirectly. There should be a state organization concerned with rationalizing the industry and having functions in the spheres of production and trade. Its functions in the former would be to carry out promotion measures, make short studies in the fields of industry and livestock production, and run a pilot productive establishment: it would be a National Packing Plant reorganized. In trade its functions as regards that of actual livestock would be to introduce a system of classification and quality assessment and to fix prices which would take into account the different interests in the country and would be regulated according to the qualities and costs of production and processing and taking into account existing international prices.

It would be responsible for licensing installation of packing establishments and for fixing quotas for the supply of Montevideo for the licensed plants, taking into account their location, size, technical processes and efficiency, the extent to which they fulfil the labour laws and their part in the export programmes, etc.

As regards the meat export trade it would try to ensure a continuous supply throughout the year, would control quality, would try to increase export of the best cuts by encouraging the sale of cut meat and corte pistola, thus maximizing foreign exchange returns. Lastly, it would have representatives in the main foreign markets.

/The same

The same organization could take part in programming the sector and formulating the appropriate policies for it.

(h) Measures in aid of the industry

Independently of the policy making of which examples were given in the alternatives above, it has been proposed that the meat industry be declared "in promotion" in conformity with the provisions of the law of industrial promotion. Thus, establishments considered suitable by the Department of Industries would be granted exemptions from payment of several duties on import of capital goods to replace equipment, as well as credit incentives for carrying out investments of this kind and for financing exports, productivity studies, quality control installations and technological research.

It has also been proposed that research be made to discover the appropriate techniques, size and location of industrial plants. Special programmes for productivity, standardization, control of quality and technological research will be developed in accordance with the bases laid down in the overall programme.

3. Edible oils

This activity has been established in Uruguay for about 30 years. Of existing establishments - 9 altogether - 7 were installed between 1935 and 1945. This coincides with the development of sunflower cultivation, which began in the '30's and expanded rapidly during the following decade.

Development was dynamic enough to enable the country to substitute its imports of edible oils and become an exporter of them. (See table 10.)

(a) Location and size of establishments

All establishments except one, which is in Paysandu, are situated in Montevideo, which gives a geographical distribution of: 84 per cent of capacity in Montevideo and 16 per cent in the rest of the country.

As regards size, 66 per cent of establishments can be considered of adequate dimensions (processing capacity of 120 or more tons of seeds per 24 hours).

Internal consumption can be supplied by three of the existing establishments, which represent 56 per cent of total capacity.

/Table 10

Table 10

URUGUAY: EXPORT OF EDIBLE OILS AND SUB-PRODUCTS, 1949-1964

Years	Edible oils		Cakes and meal a/		Total (Thousands of dollars)
	Tons	Thousands of dollars	Tons	Thousands of dollars	
1949	10 263.9	3 235.6	73 653.8	4 987.5	8 223.1
1950	5 324.1	1 929.1	36 197.8	2 347.7	4 276.8
1951	12 769.4	7 302.6	76 153.3	6 862.6	14 165.2
1952	9 491.2	3 174.8	66 725.2	5 384.0	8 558.8
1953	8 455.1	2 556.8	66 480.4	4 623.4	7 180.2
1954	3 361.8	1 082.2	102 542.4	7 617.7	8 699.9
1955	-	-	56 943.6	4 290.1	4 290.1
1956	-	-	31 235.2	1 681.9	1 681.9
1957	-	-	50 854.4	2 253.2	2 253.2
1958	-	-	59 293.3	2 915.0	2 915.0
1959	5 916.0	1 441.0	20 470.4	1 263.7	2 704.7
1960	-	-	28 707.0	1 979.7	1 979.7
1961	-	-	31 170.1	1 779.4	1 779.4
1962	-	-	46 748.4	2 984.5	2 984.5
1963	3 495.7	779.2	73 558.2	5 290.9	6 070.1
1964	464.8	111.7	32 404.0	2 223.3	2 335.0

Source: CIDE.

a/ This includes, besides those of sunflower and peanuts, those derived from flax processing.

(b) External market

The European Economic Community (EEC) and the European Free Trade Association (EFTA) absorb practically all exports: 95.6 per cent in 1963 and 97.8 per cent in 1964.

The quality of the products comes up to external requirements and the only limits on demand are those which might arise from protectionist policies on the part of the importing countries.

(c) Factors of production

Production capacity for edible oils is 45,350 tons a year. Adding together exports and internal consumption (approximately 18,000 tons a year) it appears that in 1963 the country used 47.9 per cent of this capacity.

/The industry

The industry employs about 390 persons in types of work which do not need a high degree of skill. Their training is carried by the enterprises themselves and lasts for no more than a few weeks.

The technical processes used are excellent and although the equipment is between fifteen and twenty years old it has a good state of preservation and has several years more of active life.

The most important raw materials produced by Uruguay are, first, sunflower seed and, second, peanuts. Besides these, but in smaller quantities, grape pips, maize germ and soybean are processed.

(d) Problems of production

The main problem from which the industry suffers is shortage of raw material. Future measures should be directed - as is now intended - towards rational planning of cultivation.

A ready supply of raw material would provide a basis for further incentives for an industry which has excellent prospects of selling its production surpluses in foreign markets.

(e) Legal aspects

Production of oils is liable to the general tax burdens of industry. Its exports are exempt from tax by a law of 23 October 1958 and from payment on gross returns by Law 13,241 of 31 January 1964. Purchase of seeds is liable to the tax on agricultural transactions (Law 12,996 of 28 November 1961).

Exports of oils and sub-products is subject to the drawbacks ruling; those in force at present are as follows:

Product	Drawback: pesos per thousand kilogrammes
Sunflower oil	2 489
Sunflower cake	1 229
Sunflower meal	982
Sunflower seed	2 100

This ruling is a definite incentive to export of processed products. Thus, if the production yields of 100 kilogrammes of seed are taken as:

/Yield

Yield	Sunflower
Oil	25 per cent
Meal	35 per cent

the difference in favour of each ton of processed seed comes out as:

Sunflower: 2,100 - 945.95 = 1,154.05

(f) Projections of demand

(i) Internal consumption. Internal consumption of edible oils can be projected on the basis of estimated consumption for 1964, taking into account the predicted growth of population and applying an expenditure-elasticity coefficient of 0.4. It can thus be estimated that the 18,250 tons consumed in 1964 will rise to 23,320 tons in 1974.

(ii) Exports. The exportable surpluses of seed are calculated from the projections of demand for seed on the part of the agricultural sector and of the needs of internal consumption. The projection for the fully processed product is that the 465 tons of 1964 will rise to 69,345 tons in 1974.

(iii) Total demand. Addition of internal demand and projected exports gives the demand estimates which appear in table 11.

Table 11

URUGUAY: ESTIMATES OF TOTAL DEMAND FOR EDIBLE OILS, 1967-1974

(Tons)

Years	Demand of internal consumption	Exports	Total demand
1965	18 653	-	18 653
1966	19 062	5 788	24 850
1967	19 479	16 751	36 230
1968	19 895	23 679	43 574
1969	20 415	30 367	50 782
1970	20 967	41 429	62 396
1971	21 531	48 017	69 548
1972	22 113	55 229	77 342
1973	22 709	62 283	84 992
1974	23 322	69 345	92 667

/The cumulative

The cumulative growth rates would be:

1965-1967	39.3 per cent
1967-1974	16.3 per cent
1965-1974	19.5 per cent

The high growth rate for the first three years is considered feasible because there seem to be no limiting factors on demand and, as regards production expansion can be achieved by use of idle capacity. Increases in production after 1968 will need expansions of capacity, which will have to be begun in good time.

(g) Programming of resources

(i) Gross fixed investment. Table 12 gives an overall picture of the investments needed, divided into net and replacement investments and expressed in terms of national and foreign currency.

Table 12

URUGUAY: PROJECTION OF INVESTMENTS IN THE EDIBLE OILS INDUSTRY

(Thousands of pesos and thousands of dollars of 1963)

	1965		1966		1967		1965-67		1968-74		Total		General total (dollars)
	a/	b/	a/	b/	a/	b/	a/	b/	a/	b/	a/	b/	
Net investment	-	-	-	-	1 014	56	1 014	56	17 846	1 005	18 860	1 061	2 437
Investment in replacements	825	35	825	35	825	35	2 475	105	9 034	394	11 509	499	1 339
Gross fixed investment	825	35	825	35	1 839	91	3 489	161	26 880	1 399	30 369	1 560	3 776

a/ Thousands of pesos.

b/ Thousands of dollars.

/(ii) Employment.

(ii) Employment. The predicted rises in employment for the two periods of the decade are as follows: 1965-1967, 59 workers, and 1968-1974, 620 workers.

(iii) Foreign exchange balance. The industry has practically no imported inputs. Its consumption of foreign exchange is confined to the imported part of its gross fixed investment and to power consumption. It makes, therefore, a large positive contribution to the trade balance, estimated at 124 million dollars for the decade.

(h) Measures in aid of the industry

As was seen above the industry's chief problem is the shortage of raw material. This will be solved by applying a production programme for oleaginous crops which will form part of the agricultural plan. This is expected to bring about a regular and growing production on the part of the agricultural sector, which is a necessary, though not a sufficient condition for the solution of the problem in industry. Another aspect of the problem is that if, as is proposed by the Agrarian Reform Project, the drawbacks are gradually eliminated, the prices of seed in the internal market will rise to a level similar to those of the international market. This must be counteracted by introducing a series of measures designed to increase the efficiency of the industrial establishments to a degree enabling them to operate under conditions competitive with those of foreign producers.

These measures form part of the provisions of the industrial promotion law, in conformity with which it will be declared in promotion.

4. The textile industry

The importance of the textile industry is immediately obvious from the facts that its production represents about 23 per cent of the total for the manufacturing sector and that it employs 10 per cent of industrial manpower.

It is heavily concentrated, both geographically (84 per cent of employment in Montevideo) and in respect of the sizes of its establishments (in sheet fabrics 5 per cent of the establishments employ 62 per cent of the total personnel of the branch).

/There is

There is scarcely any natural growth of consumption owing to the slow increase of income per inhabitant and because textile prices have risen faster than general prices; it has developed primarily in respect of the quality of the products consumed.

The industry has grown and diversified through great intensification of the capital factor, and it has thus become able to supply consumption of high quality articles, to substitute imports and make exports.

It is generally better off as regards machinery than the industries of other Latin American countries. An anomalous aspect is, however, that the wool sector, for which the country has comparative advantages, is worst provided in this respect.

The indexes for utilization of machinery are low, especially in the wool sector.

Unit production, that is, the physical production of a unit of machinery in a unit of time, is low relative to the Latin American standard - a theoretical standard established on the basis of the potential conditions of the region - but compares favourably with those of Brazil, Chile and Peru.

There is a less encouraging situation as regards productivity and also as regards work loads, that is, the amount of machinery operated by one worker.

Costs are high in the cotton and man-made fibre sectors from a series of factors: imported raw material, customs duties, a tax for subsidizing domestic cultivation, high wages, low productivity, etc.

In the wool sector costs are relatively low as a result of the low price of the raw material and of relatively high productivity, at least in spinning.

(a) Targets for washed wool

Installed capacity is estimated at about 30,000 tons a year, for higher than the demand projected for the period (14,400 tons for 1974). It is not considered advisable to promote exports of washed wool on account of its very low value added.

/(b) Targets

(b) Targets for combed wool in tops

A cumulative annual growth in exports of 8.8 per cent is projected, which gives the following figures for exports: 15,160 tons in 1965 and 30,300 in 1974. It also gives a figure for 1966 higher than that of 1956 (16,000 tons). By adding to these the figures for domestic consumption the following production targets are reached: 1965, 18,100 tons and 1974, 34,400 tons.

Installed capacity is estimated at about 26,000 tons a year (535 combers, 3 shifts, 6,200 hours/year, 8 kilogramms) comber (hours, which is equal to the Latin American standard). The unit production is greater than this some of the large factories.

Investment may be expected to maintain installed capacity at a safe distance ahead of demand; thus the target for the former is 37,000 tons in 1974, which gives an expansion of 11,000 tons, or 220 combers, during 1969-1974.

(c) Targets for combed wool yarns

The projected targets for exports are a doubling of volume between 1965 and 1967 (from 500 to 1,000 tons a year) and a further increase of 80 per cent (tol,800 tons) between 1967 and 1974.

Present installed capacity is estimated at 3,930 tons a year, that is, 52,870 spindles working two shifts, with unit production of 18 grammes/spindle/hour.

This production amounts to 51 per cent of the Latin American standard, and as a medium-term target it is intended to increase it to 75 per cent of the standard (22.2 grammes (spindle/hour) during 1965-1969, which would raise capacity to 4,850 tons a year making it equal to the demand total projected for that year.

If a level of over 100 per cent of the standard (29.5 grammes/spindle/hour) is reached, capacity with increase to 6,430 tons a year, which is higher than the demand predicted for 1974. This might be considered as a long-term target, and it is one which will require modernization of machinery. According to preliminary estimates, the investments needed will amount to 1,700,000 dollars.

/(d) Targets

(d) Targets for carded wool yarns

There are no exports of this product on account of its high price, which derives from used of a raw material of very much finer quality than that employed in other countries. The projected demand involves therefore only one factor, that of internal consumption.

Demand is expected to rise from 1,740 to 2,340 tons a year and, as present installed capacity is estimated at 2,580 tons a year, no expansions in this branch are envisaged.

(e) Targets for woollen cloth

A doubling of exports between 1964 and 1967 - from 200 to 400 tons a year - and a further doubling by 1974 is projected. As estimated production capacity is 2,680 tons a year it is expected that there will be no need for expansion during the period in question.

(f) Measures and activities in aid of the industry

It is proposed that the textile industry should be promoted under the terms of the industrial promotion bill and that the establisments approved by the Department of ndustries should be admitted to the benefits there established.

5. The tanning industry

This industry comprises tanning of cow hides and sheep skins. Tanning of cow hides contributes by a long way the largest proportion of the gross production value; in 1964, the only year with complete registration of production, it represented 81 per cent of the total, tanning of sheep skins 17 per cent and tanning of all other materials for 2 per cent. Production is consumed partly internally, by footwear, articles of leather and wearing apparel manufactures, and partly by exports.

During 1957-1963 it remained stationary, reaching its maximum in 1958; but in 1964 it seemed to have begun a considerable recovery. (See table 13.)

Nearly two-thirds of production is located in the Department of Montevideo. Only one enterprise in the interior employs over 50 workers.

/(a) Factors

(a) Factors of production and its use

(i) Installed capacity. The industry's installed capacity for tanning is estimated at 800,000 hides and skins a year, of which 74 per cent was used in 1963 and almost 100 per cent in 1964.

Table 13

URUGUAY: PRODUCTION OF TANNED HIDES AND SKINS
1957-1963

(Thousands of dollars of 1963)

Years	Gross production value	Index of physical volume (1963 100)	Value added
1957	9 046	108.8	4 512
1958	10 310	124.0	5 142
1959	9 670	116.3	4 823
1960	8 173	98.3	4 076
1961	8 655	104.1	4 317
1962	8 298	99.1	4 139
1963	8 314	100.0	4 074

Source: CIDE, from basic information of the Bank of the Republic.

The structure of the value of its fixed assets expressed in replacement prices is, according to the industrial survey of 1964, as follows:

	Percentage
Machinery and equipment	50.1
Buildings and other civil works	43.8
Transport material, furniture and fixtures and others not elsewhere specified	6.1

The main enterprises show considerable concern to keep up-to-date with technological developments and send their technicians every year to the industrialized countries or contract the services

/of experts

of experts from those countries. Nevertheless an active process of equipment renewal has only recently got under way and there remains a large proportion which is old.

(ii) Manpower. In 1963 the total employment of the industry was 2,030 persons, of whom 1,650 were workers. The considerable increase of production in 1964 did not give rise to a parallel increase of employment, which indicates that under-employment was greater in the first of these years.

Manpower productivity is estimated at 12 square feet/hour/worker on average, and at 18 square feet/hour/worker in the most modern tannery. These levels are lower than the normal averages of Europe and the United States, and even of Argentina. Moreover, the product put out by the Uruguayan tanneries is exceedingly cheap - about 20 cents of a dollar per square foot - is a situation which can be improved immediately.

The process of introducing modern techniques mentioned above had very little effect on the numerical strength of employment, but will create a demand for larger numbers of technicians and trained workers.

(iii) Inputs. The potential supply of raw material provided by controlled slaughter has been estimated at 1,000,000 hides a year over the two years 1961-1962, of which a half has been processed. Almost all the raw material is domestic except for a few small skins imported under the temporary admissions laws. Salted hides can be obtained from the packing plants or from abattoirs; in the first case they cost 30 to 40 per cent more.

The industry imports chemical products, quebracho extract and sodium chromate. In 1963 the foreign exchange spent on these inputs amounted to 300,000 dollars, as against export by the industry worth 1,923,000 dollars.

(b) The market

(i) Supply and demand. Internal supply consists almost entirely - 99 per cent in value - of domestic production 75 to 80 per cent of demand derives from the needs of the industrial activities using this product and the remainder from the export trade. That 80 per cent

/of internal

of internal demand is represented by the footwear industry's inputs for manufacturing purposes and another 7 per cent by its inputs for repair work; the remaining 13 per cent derives from the leather articles factories.

Almost all the tanned products exported are cow hides, plus small proportions of fine skins and sea lion skin.

(ii) Prices. Internal prices are affected by raw material prices, which in turn are related to those of livestock and by the inflationary process, which changes the relations between the prices of other inputs and manpower inputs.

(iii) The external market. Since 80 per cent of world production of tanned hides is used by the footwear industry, the evolution of external demand for Uruguayan tanned hides has been closely related to that of this activity. Substitution by synthetic materials may have a considerable effect on the tanning industry in future.

The importing countries impose several restrictions on import of tanned hides, such as import licenses, preferential arrangements with other countries, different duty rates on entry of manufactured and semi-manufactured products, quota systems, etc.

During the last few years even though exports reached their maximum value of 2,884,000 dollars in 1964, prices have fallen as a result of an increase in the physical volume of semi-finished products exported and, in particular, of the introduction of the product known as wetblue, whose production involves very little processing and which in 1964 represented 30 per cent of this type of export. (See table 14.)

Exports of tanned sheep skins, which were worth 952,000 dollars in 1964, have only begun to be of importance during the last few years; the 1964 figure is influenced by exports of warm inner soles, which do not appear as a separate item in the statistics.

/Table 14

Table 14

URUGUAY: EXPORT OF TANNED COW HIDES, 1960-1964

Years	Finished tanned hides				Semi-finished tanned hides				Tanned products				Total in thousands of dollars
	Thousand dollars	Tons	Dollars per ton	Price index 1963-100	Thousand dollars	Tons	Dollars per ton	Price index 1963-100	Thousand dollars	Tons	Dollars per ton	Price index 1963-100	
1960	1 007.9	285.6	3 530	99.4	631.9	277.8	2 270	135.9	257.7				1 897.5
1961	1 069.6	318.3	3 360	94.6	906.0	377.4	2 400	143.7	134.8	689.5	200	83.3	2 110.4
1962	1 204.8	328.3	3 670	103.4	1 009.0	451.6	2 230	133.5	178.3	867.3	200	87.5	2 392.1
1963	909.4	256.5	3 550	100.0	662.2	397.2	1 670	100.0	206.8	867.3	240	100.0	1 778.4
1964	1 076.0	384.5	2 800	79.0	1 380.2	1 914.0	720	43.0	387.8	1 269.6	300	125.0	2 844.0

Source: Bank of the Republic.

/The most

The most important of the various markets to which tanned cow hides are exported are the two European economic organizations EEC and EFTA, which buy over two-thirds, and the United States, which absorbs between 20 and 25 per cent. Central America and the West Indies buy between 7 and 10 per cent and the Latin American Free Trade Association (ALALC) a neglegible proportion. As regards tanned sheep skins, 99 per cent of exports are sold to the Western European markets.

The quality of Uruguayan production is generally considered good, and in some items excellent.

(iv) Exchange and taxation factors. Tanned hides are traded on the free market; on the other hand, exports of raw, salted and pickled hides are subject to drawback. There are no special tax provisions for the industry and the present level of taxation does not appear to be an obstacle to its development.

(c) Problems confronting the industry

Until 1963 export of tanned hides lacked dynamism. This can be attributed to the maintenance of rigid rates of exchange which as internal costs rose created conditions increasingly unfavourable to competition on the part of the industry. The situation was temporarily improved by a currency devaluation but subsequently began to deteriorate again. Since May 1963, however, hides have been exported under conditions of free exchange, which has stimulated the development of the industry.

One internal shortcoming seems to be the slowness of the entrepreneurs to adopt technological innovations, though there are various signs that a process of renewing equipment has now begun.

In the case of sheep skins there appears to be considerable ignorance among the entrepreneurs regarding the opportunities offered by the foreign market.

The problem arising from the restrictions imposed by importing countries has already been mentioned.

The greatest problem of the industry seems to be raw material supply because domestic manufacturers are at disadvantage before the economic power of foreign buyers in competing to purchase supplies of hide. The drawback machinery tends to counteract this disadvantage but

/the industrialists

the industrialists say that suitable measures of control must be applied to ensure its proper functioning.

(d) Targets cow hide tanning

(i) Demand. The projection of internal consumption has been calculated on the basis of the development of the industries using tanned leather, of footwear manufacture and repair, and of manufacture of leather articles. It is estimated that internal consumption will increase by 50 per cent over the decade.

The exportable surpluses expressed in tons of raw hides are found from the projections of the availability of hides made by the agricultural sector and the projections of internal consumption. In addition to this, targets for export of tanned cow hides have been established on the basis of the industry's present capacity and of future additions to this resulting from the known projects which will come into operation in 1968. This criterion based on the opinion of the industrialists that there will be no limitations on the side of demand and assumes that present conditions as regards rates of exchange and incentives will remain unchanged. (See table 15.)

Table 15

URUGUAY: TARGETS FOR PRODUCTION, CONSUMPTION AND EXPORT OF COW HIDES, 1965-1974

(In tons of raw hides)

	1965	1966	1967	1974
Production:	47 937	49 394	48 302	58 207
Hides from slaughter	42 891	44 638	43 807	55 481
Hides from natural death	5 046	4 756	4 495	2 726
Internal consumption	12 434	12 864	13 273	19 555
Exportable surplus	35 503	36 530	35 029	38 652
Exports:				
Salted hides	19 527	17 534	14 012	2 675
Dry hides	4 260	3 653	3 153	3 198
Pickled hides	1 065	1 096	1 050	800
Tanned hides	10 651	14 247	16 814	31 979

Source: CIDE.

/It is

It is expected that by 1974 tanned hides will represent 80 per cent of the exports of the heading. If dry hides are excluded this target implies that practically all potentially available hides will be processed. (See table 16.)

If it is to satisfy predicted demand the 1964 production capacity of 800,000 tanned hides will have to increase to 1,037,000 in 1967 and to 1,780,000 in 1974. The resulting growth rate of production for the period 1965-1967 is 14.2 per cent and for 1967-1974 7.2 per cent; the difference of rates is due to the fact that in the first period investments will tend to eliminate the anomalous aspects of the production processes which will then give a comparatively high yield.

Table 16

URUGUAY: TARGETS FOR EXPORTS OF COW HIDES, 1965-1974
(Thousands of 1963 dollars)

	1965	1966	1967	1974
Salted hides	4 488	4 030	3 221	919
Dry hides	441	378	326	331
Pickled hides	190	195	187	142
Sub-total for hides in gross	5 119	4 603	3 734	1 392
Tanned hides	4 681	6 262	7 390	14 054
Tanned broken hides	533	713	841	1 599
Sub-total for tanned products	5 214	6 975	8 231	15 653
Total	10 333	11 578	11 965	17 045

Source: CIDE

(e) Targets for sheep skin tanning

(i) Internal demand. This derives from two main sources, manufacture of rugs and manufacture of wearing apparel, the productions of which enter the domestic market or are exported.

/A recently

A recently installed European factory is expected to produce a very rapid growth during the next three years; but the development of the factory is expected to be less rapid during the following seven. It produces articles for export.

Since total raw material production will decrease, the quantities of tanned leather available for export must also decrease, at a rate which comes out at 1.3 per cent a year for the whole period. Table 17 gives the projections of sheep skin production, consumption and export and table 18 the value of the projected exports.

There is no information on the installed capacity of the sheep skin tanneries but certain information of other kinds reveals a situation similar to that in the cow hide establishments.

Table 17

URUGUAY: TARGETS FOR PRODUCTION, INTERNAL CONSUMPTION AND EXPORT OF SHEEP SKINS

(In thousands of units)

	1965	1966	1967	1974
Production	3 796	3 901	3 669	3 419
- Skins from slaughter	2 812	2 946	2 733	2 808
- Skins from natural death	984	955	936	611
Internal consumption	250	400	500	882
Exportable surplus	3 546	3 501	3 169	2 537
Exports				
- Dry skins without wool on	323	332	312	291
- $\frac{1}{4}$ wool dry skins	645	521	366	207
- $\frac{1}{2}$ wool dry skins	1 568	1 641	1 515	1 130
- Dry lamb skins	907	932	877	817
- Tanned skins	103	105	99	92

Source: CIDE

/Table 18

Table 18

URUGUAY: TARGETS FOR EXPORT OF SHEEP SKINS, 1965-1974

(Thousands of dollars of 1963 prices)

	1965	1966	1967	1974
Dry skins without wool on	182	187	176	164
$\frac{1}{4}$ wool dry skins	851	686	482	273
$\frac{1}{2}$ wool dry skins	5 565	5 717	5 376	5 010
Dry lamb skins	105	108	102	95
Sub-total dry skins	6 703	6 698	6 136	5 542
Tanned skins	304	304	292	270
Total	7 007	7 002	6 428	5 812

Source: CIDE

(f) Investments programme

The projection of investments for the period 1965-1967 is calculated from the projects which have come to notice; for the following period it has been calculated from the value added fixed assets ratio which arises from these projects.

Replacement investments have been calculated on the basis of a useful life of 50 years for buildings and 20 years for equipment.

Table 19 gives these projections of investments expressed in national currency and in dollars.

Table 19

URUGUAY: INVESTMENTS PROGRAMMED FOR THE TANNING INDUSTRY, 1965-1974

(Millions of pesos and thousands of dollars of 1963)

	1965-1967		1967-1974		Total	
	Pesos	Dollars	Pesos	Dollars	Pesos	Dollars
Net investment	4.7	576	10.4	1 367	15.1	1.943
Replacement investment	9.3	248	25.3	674	34.6	922
Gross fixed investment	14.0	824	35.7	2 041	49.7	2.865

Source: CIDE

/(g) Effects

(g) Effects on employment

It is expected that, as a result of the technological development which is now taking place, the attainment of the targets projected will create only about 165 new jobs in the decade; but, as has already been said, the workers in the tanning industry will have to be more highly trained than at present.

(h) Financing of investments

The projection of the financing of investments has been made on the basis of the projects for the next three years which have come to notice. The structure envisaged as regards sources and amounts of funds for investment is as follows:

	1965-1967		1968-1974	
	Thousands of dollars	Millions of pesos	Thousands of dollars	Millions of pesos
Industry's own capital	292.5	3.7	724.6	28.8
Credits	531.5	10.5	1 316.4	78.9

(i) Foreign exchange balance

The projection of the balance of inflows and outflows of foreign exchange for this industry gives a favourable net surplus of 19 million dollars in the period 1965-1967 and of 81 million dollars in 1968-1974, totalling 100 million for the decade.

(j) Measures in aid of the industry

It is proposed that domestic tanneries be granted preference in purchasing raw material. This would be achieved by abolishing all tax exemptions on exports of raw hides and subjecting the application of the drawback provisions on their export to strict controls.

It is also proposed the tanning industry be declared in promotion under the terms of the industrial promotion law and that establishments approved by the Department of Industries should be granted exemptions from taxes on the import of equipment and raw materials for use in the industry; that any of its profits reinvested in fixed assets be exempted from income tax; that its enterprises be exempted from property tax, export duties on tanned hides and skins, and from tax on commercial transaction of inputs for the industry.

/It is

It is intended to provide credit incentives for making fixed investments in replacement or increasing fixed assets, for facilitating exports, and in aid of productivity studies, training programmes, equipment for control of quality, laboratories, technical assistance, and technological research.

It is also proposed that special programmes should be carried out at the industrial level in connexion with productivity, training, standardization, control of quality, and research, in accordance with the bases of the relevant programmes included in overall industrial plan. It is hoped that this combination of measures will encourage the industry to reach the targets proposed by the plan.

6. Flax oils

This activity comprises production of raw and boiled flax oil. Flax cultivation in Uruguay has yields which are satisfactory when compared with those of other large producers. Comparative yields for the period 1960-1962 were as follows (in kilogrammes per inhabitant):

Uruguay	Argentine	Canada	USA	Mexico
591	686	496	524	967

In spite of this the harvest is subject to violent fluctuations, which show that it is necessary to design agricultural policy measures for stabilizing production and thus enabling the industry to develop more rapidly.

There are 14 establishments engaged in this activity; 6 are exclusively engaged in flax processing and the other 8, which are eatable oils factories, make seasonal use of their idle capacity to produce this oil. As regards location, the industry is largely concentrated in Montevideo, which has 91 per cent of installed capacity.

Annual production capacity is estimated at 162,500 tons of seed which is equivalent to 53,600 tons of oil. Utilization was less than 60 per cent in 1964.

/The technical

The technical processes used are good; it is also worth mentioning that most of the establishments are equipped wholly or partly with presses made in the country.

The quality of the products comes up to the requirements of the external markets and the only limiting factor demand is protectionist policies on the part of importing countries.

The main purchaser is the European market, particularly the EEC, and Africa and the Council for Mutual Economic Aid (COMECON) are possible permanent clients.

(a) Problems of production

The industry has for a long time suffered acutely from problems of raw material supplies. It has already been said that supply undergoes violent annual fluctuations which correspond to the amount of land sown. The reductions which occur in this amount can be related to several factors:

(i) The drawbacks ruling, which really consists in subsidization of the industrial by the agricultural sector, channels the supply of seed towards the oil industry instead of towards exports;

(ii) In these circumstances the farmer finds it advantageous to opt for alternative crops;

(iii) The industrialists assert that they would be unable to produce competitively if they had to pay the international price of seed;

(iv) The international price of oil is practically the same as that of flax.

Several possible explanations of these factors may be briefly discussed:

(i) That domestic production is very inefficient and consequently its costs are too high. This is not acceptable, seeing that the industry is highly mechanized, that its yield of oil per ton of seed corresponds to standard technical percentages and that the incidence of manpower is very small; moreover, inspection of general establishments by a foreign expert revealed no such shortcomings. All the same, it should be recorded that it only worked at 60 per cent of capacity in 1963 and still less in 1964, which has helped to raise its costs, though to a degree which it has not been possible to estimate.

/(ii) That

(ii) That the developed countries, themselves large-scale consumers and producers of flax oil, protect their internal production by means of duties discriminating between seed and oil, or, if not, that they subsidize production of the latter. If this were done, the international price of the oil exported by the seed producing countries would have to fall in order to compensate for the customs barriers and ensure that it could be sold in those markets at prices similar to those of the oil produced locally from imported seed;

(iii) That the international market for flax seed and oil is not free, as it is dominated by a small number of intermediaries. The relation between seed and oil prices, which favours the sale of the fomer in the international market, might be decided by the trade policy of these intermediaries.

CIDE has been unable to reach any conclusions respecting the degree of importance of these and other factors and cannot therefore take up a definite attitude as to what long-term policy should be adopted in the field of this industry. However, considering the large proportion of the country's installed capacity which remains idle, one provisional step which it seems logical to take - for it will then become possible to decrease the subsidy and bring the industry closer to a state of economic viability - is the provision of incentives for maximum utilization of this capacity. Meanwhile there will be time to analyze the external factors more thoroughly and determine whether the country is in a position to make them more favourable itself by adopting definite policies respecting them.

(b) Protection of demand

Internal consumption of flax oil is confined to use in paints and varnishes and is of little importance.

As regards external consumption the decision has been made on the basis of the agricultural sector's estimates of seed surpluses and taking into account the factors discussed in the section above to increase seed processing up to the limit of installed capacity, which means that production will go on expanding until 1970. The average of exports during 1965-1967 will be 23 per cent above those for 1962-1964.

/For the

For the period 1965-1970 taken as a whole the cumulative annual growth rate will be 20.9 per cent.

Assuming that subsequent studies do not prove the need to expand installed capacity for 1970, there will be an exportable surplus of seed of 4,500 tons in that year and of 82,360 tons in 1974.

Table 20 gives the investments needed expressed in national and foreign currency and divided into net and replacement investments. A calculation has also been made of the investments needed to expand capacity to a point where the whole production of seed can be processed, in case this should appear advisable from future analysis of external factors.

Table 21 gives the projection of the net effect of this industry on the trade balance, under the two separate alternatives mentioned above.

(c) Measures in aid of the industry

The only programming which will be carried out will be concerned with installed capacity utilization. In order to increase utilization a series of measures is proposed, comprising:

(i) Tax exemptions on payment of:

- duties, surchages, and port dues and charges on imports of capital goods for replacement purposes;
- export duties on oils, meals and cakes;
- taxes on commercial transactions of inputs for the industry.

(ii) Credit incentives for:

- circulating capital;
- financing of replacement of equipment;
- financing of exports.

/Table 20

Table 20

URUGUAY: PROJECTIONS OF INVESTMENTS WITH OR WITHOUT EXPANSION OF INSTALLED CAPACITY

(Millions of pesos and thousands of dollars of 1963)

	1965		1966		1967		1965-1967	
	Pesos	Dollars	Pesos	Dollars	Pesos	Dollars	Pesos	Dollars
Net investment	-	-	-	-	-	-	-	-
Replacement investment	0.7	4.7	0.7	4.7	0.7	4.7	2.1	14.1
Gross fixed investment	0.7	4.7	0.7	4.7	0.7	4.7	2.1	14.1

	Without expansion				With expansion				Total	
	1968-74		total		1968-74		total		non-exp.	exp.
	Pesos	Dollars	Pesos	Dollars	Pesos	Dollars	Pesos	Dollars	(Dollars)	
Net investment	-	-	-	-	6.6	280.7	6.6	280.7	-	762.3
Replacement investment	4.9	32.9	7.0	47.0	6.2	41.7	8.3	55.8	557.8	661.5
Gross fixed investment	4.9	32.9	7.0	47.0	12.8	322.4	14.9	336.5	557.8	1 423.8

Source: CIDE.

Table 21

URUGUAY: FOREIGN EXCHANGE BALANCE IN THE FLAX OIL INDUSTRY, WITH OR WITHOUT EXPANSION OF CAPACITY

(Thousands of 1963 dollars)

	1965	1966	1967	1965/1967
Inflows				
Export	6 145	8 230	10 695	25 070
Outflows				
Imported component of investment and power	54	61	76	191
Net balance	6 091	8 169	10 619	24 879

	Without expansion		With expansion	
	1968-74	total	1968-74	total
Inflows				
Export	147 660	172 730	144 670	169 740
Outflows				
Imported component of investment and power	796	987	1 231	1 422
Net balance	146 864	171 743	143 439	168 318

Source: CIDE, from data of the Bank of the Republic. Projections at 1963 prices f.o.b.

/7. The

7. The fertilizer industry

(a) Demand

The projections for demand refer exclusively to internal demand and do not take into account the exports which might result from future integration programmes at the regional level; they are based on the land allocations, and production targets of the agricultural sector. According to this, consumption of nitrogen, potassium and phosphorous, expressed as N, P_2O_5 and K 20, will develop as follows:

Thousand tons

		1963	1974
Nitrogen	(N)	7.2	40.6
Phosphorous	(P_2O_5)	15.6	139.9
Potassium	(K 20)	4.1	19.9

The 1963 structure of demand was: nitrogen, 26.8 per cent, phosphorous, 58 per cent, and potassium, 15.2 per cent. Its 1974 structure is estimated as: nitrogen, 19.8 per cent, phosphorous, 70.6 per cent, and potassium, 9.6 per cent; the increased use of phosphorous shows that fertilizers will be used more extensively in the livestock farms, for which it is the only nutrient recommended.

Domestic production is limited to processing of phosphatic raw materials (production of super-phosphate Thomas slag) and manufacture of three-component fertilizers (mixture, with or without granulation, of phosphatic, nitrogenous and potassic raw materials).

Since no deposits of raw materials for fertilizers have been discovered in the country, the projection for the first stage of development of the sector is: manufacture of phosphate nutrients from imported phosphate rock and import of nitrogenous and potassic nutrients for producing two - or three - component fertilizer mixtures.

It is felt that the possibility of producing synthetic nitrogenous fertilizers should be re-examined during the next few years in the light of the real evolution of the market.

/Since installed

Since installed capacity for processing phosphate rock will be large enough for demand until 1967, its expansion is projected for 1968, when capacity for producing high concentrate phosphorous fertilizers, triple super-phosphate, ammonium phosphate, etc. will be included.

As regards nitrogen, the National Fuels, Alcohol and Cement Authority (ANCAP) has a project for installing a reception terminal for liquid ammonia, whose import will result in considerable foreign exchange savings.

(b) Resources

(i) Investment. A gross fixed investment of 12.7 million pesos is envisaged for 1965-1967, and of 234.4 million for 1968-74. The comparatively small investment of the first period is due to the fact that development will then take the form of increased utilization of idle capacity.

(ii) Foreign exchange needs. Table 22 gives the values of the imports which must be made in order to reach the projected production targets.

It has been assumed that potassium will be imported in the form of potassium chloride and nitrogen in that of ammonium.

(c) Measures in aid of the industry

Many of the measures of fertilizer policy have been introduced in agricultural promotion bills. As regards prices it will be worth preparing a policy for future abolition of the subsidy set up by the government. This has undoubtedly been an effective instrument for promoting fertilizer use, but it should be slowly and gradually eliminated once the trial stage has been passed and their use has become of accepted value among farmers. Full utilization of installed capacity and technological progress will enable production costs, and, subsequently , sales prices, to be reduced.

/Table 22

Table 22

URUGUAY: PROJECTION OF IMPORTS IN THE FERTILIZERS HEADING

(Thousands of dollars)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
K 20 thousand tons	7.9	8.9	10.2	12.3	14.3	15.7	17.0	17.9	18.5	19.9
Equivalent in potassium cloride	13.1	14.8	16.9	20.4	23.8	26.1	28.2	29.7	30.7	33.1
Thousand U.S. dollars (U.S. $ 45 per ton)	590.0	666.0	761.0	918.0	1 071.0	1 175.0	1 269.0	1 337.0	1 382.0	1 490.0
N thousand tons	12.3	14.3	17.3	21.7	26.5	30.5	34.0	36.2	38.2	40.6
Equivalent in ammonium	15.0	17.4	21.1	26.5	32.3	37.2	41.5	44.1	46.6	49.5
Thousand U.S. dollars (U.S. $ 75 per ton)	1 125.0	1 305.0	1 583.0	1 988.0	2 423.0	2 790.0	3 113.0	3 308.0	3 495.0	3 713.0
Phosphate rock: thousand U.S. dollars	3 445.0	3 445.0	3 445.0	4 684.0	5 280.0	6 457.0	6 457.0	7 475.0	8 007.0	8 494.0
Sulphur	600.0	600.0	600.0	842.0	1 067.0	1 512.0	1 512.0	2 040.0	2 315.0	2 567.0
Machinery: thousand U.S. dollars	-	-	370.0	1 500.0	2 500.0	-	3 900.0	-	-	-
Total: thousand U.S. dollars	5 760.0	6 016.0	6 759.0	9 932.0	12 341.0	11 934.0	16 251.0	14 160.0	15 199.0	16 264.0
Total per person	-	-	18 535.0	-	-	-	-	-	-	96 081.0
Accumulated total	-	-	-	-	-	-	-	-	-	114 616.0

Source: CIDE.

/8. The

8. The iron and steel industry

(a) Demand

Demand showed a slight upward trend between 1946-1950 and 1961 (from 100,000 to 116,000 tons in equivalent ingots), primarily owing to an increase of the capacity to import. Consumption of the main products (iron round bars and shapes, plates and sheets, pipes, tubes, and wire) maintains a certain correlation with the activity of the building industry, and that of tin plate with the activity of the food industry. (See table 23.)

Table 23

URUGUAY: AVERAGE ANNUAL DEMAND FOR ROLLED AND SEMI-MANUFACTURED IRON AND STEEL PRODUCTS

(In tons of equivalent ingots)

Item	1946-50	1961
Iron ingots	9 826	-
Bars, round bars and shapes	37 107	55 143
Plates and sheets	19 891	24 884
Tin Plate	13 241	8 165
Pipes and tubes	5 118	6 588
Wire	14 210	19 870
Steel generally	2 013	1 298
Total	101 406	115 948

(b) Production

This shows much the same characteristics as those of other countries with a small internal market and where the industry is in incipient stages; it is based on imported semi-manufactures, and steel manufacture (10,000 tons a year) is carried out in semi-integrated plants using scrap as their raw material. Round bars represent most-nearly 80 per cent of total production of rolled products.

/(c) Projections

(c) Projections of demand

These have been made at the product level on the basis of statistical analysis of time series without having recourse to weighing of the values which may be attained by specific economic indexes characteristic of and significant for the sector.

The corresponding figures of consumption for 1975, expressed in tons of equivalent ingots, come out as follows:

	Tons
Iron round bars and shapes	93 800
Sheets and plates	62 400
Pipes	15 000
Tin plate	22 300
Wire	39 950
Other rolled products	16 850
Overall apparent consumption in 1965	250 300

If the past average demographic growth rate continues, the overall consumption is equivalent to an apparent consumption per inhabitant of 82 kilogrammes.

(d) Development prospects of the sector

The fact that at present production is in its incipient stages seems to open up a development free of the handicaps which are imposed by existing situations in the more developed Latin American countries. Iron-ore reserves are large enough for carrying out an iron and steel programme compatible with the conditions imposed by economies of scale. By planning according to the classical guiding principles for this activity, it will be possible to achieve low production costs and to enter the export trade of iron and steel raw materials and products, thus improving the balance of trade.

The preliminary studies of the tenor of the ore from the Valentines deposits have had encouraging results. Their location in an area which is easily accesible and is near the potential consumer market is of great economic importance. Once mining operations have begun, as is to take place shortly, the iron and steel industry can be developed step by step, which, by enabling the investments needed to be distributed over different periods of time, will considerably reduce the problems of financing.

/(e) Domestic

(e) Domestic resources and their location

(i) The iron-ore of the Valentines deposits. The reserves explored (proven, probable and possible) amount to 28,450,000 tons of hematite and magnetite iron-ore, with a tenor varying between 38 and 40 per cent Fe; it is thought that further prospection will reveal considerable additions to these reserves. From tests made so far it seems that processes for concentration up to about 68 per cent Fe and nodulization offer no difficulties.

(ii) The iron-ore of the Zapucay deposits (Imán and Papagayo hills). It is considered that a coordinated programme of prospection and tests should be carried out in order to determine the ore quality of this mine and the extent of its probable reserves.

(iii) Other inputs. Limestone and dolomite scrap, and manpower that is suitable for training and cheap are locally available; the steel industry will however depend on imports for its supplies of fuels, refractories and ferro-alloys.

(f) General conditions of iron and steel development.

Comparison of the availability and tenor of local raw materials and the power of supplies that will be available for the industry with the equivalent factors in other Latin American steel producing countries leads to the following conclusions:

(i) The tenor and suitability for concentration and agglomeration of the Valentines iron-ore, the situation of the deposits in relation to the consumer markets and the ports of embarkation, the means of transport, the availability of scrap, dolomite and limestone, etc. put the country in what, at first sight, seems to be a favourable position from which to engage in export of this raw material and of semi-manufactured iron and steel products.

On the other hand its limited investment capacity will initially handicap its chances of engaging in export of rolled end products.

(ii) Uruguay can produce pig iron and hematite, of which Argentine will be a permanent importer.

/(iii) An

(iii) An export trade in rolled products can be built up at a second stage by using advanced technology which will reduce costs to internationally competitive levels.

(iv) Until new reserves are brought into operation a quota for exports should be adopted which decreases relative to rate of use of the iron-ore and is compatible both with the requirements of the external sector and with the need to avoid premature exhaustion of reserves.

(g) Projections of production and export up to 1978

On the basis of the conditions discussed above and of a study of the effects of economies of scale and of internal market demands, the volumes of iron and steel production and exports have been fixed as indicated in table 24.

Table 24

URUGUAY: PROJECTIONS OF IRON AND STEEL PRODUCTION AND EXPORTS, 1973-1978

(Tons)

	1973	1974	1975	1976	1977	1978
A. Production						
1. Iron-ore nodules	584 000	658 000	731 000	731 000	731 000	731 000
2. Pig iron	-	-	85 000	180 000	200 000	200 000
3. Rolled products	-	-	-	-	51 000	105 000
B. Exports						
1. Iron-ore nodules	584 000	658 000	607 000	439 000	439 000	439 000
2. Pig iron	-	-	66 000	160 000	128 000	78 000

The narrowness of internal demand suggests that there should be as little diversification as possible in end products, for which rolling equipment should be used which is economically adapted to small production volumes, but which can satisfy the main needs of the market: iron round bars, bars, light shapes, strips and wire, whose demand projections for 1975 are as follows:

	Tons
Iron round bars and commercial light shapes	75 000
Wire rod and wire	32 000
Strip	10 000
Total	117 000

/(h) Technico-economic

(h) Technico-economic and financial assessment of iron and steel production

(i) Technical characteristics of the new producing centres. For economic reasons production should be concentrated into an integrated plant managed and directed by a single enterprise, which should supply the demand of the existing seamed and seamless piping plants; it is considered that the present rolling mills are too old to remain in operation.

(ii) Processes and structure of the integrated plant. The following aspects are envisaged:

- Ore extraction at Valentines. For the first fifteen years the deposits can be worked opencast; preliminary studies suggest that it will be useful to establish transverse cuts in the ore banks.
- Ragging milling and concentration of ore. On a preliminary view it is considered that the ore after ragging and milling will have to be concentrated by magnetic separation on a 35 mesh and the resultant heads concentrated gravimetrically.
- Ore agglomeration. There are no complete studies of this stage, but it is considered that the ore will be nodulized in installations of several parallel processing circuits.
- Reduction of ores. Comparative study of the probable operating costs of the different processes which can be used on the agglomerated ore suggests that blast furnace reduction should be used.
- Steel manufacture. From consideration of the modern processes suited to the chemical characteristics of the pig iron to be produced and of the internal availability of scrap, the best from the economic point of view appears to be refining by oxygen-blown converter (LD process).
- Rolled goods production. As a substantial growth in steel consumption may be expected before the rolling equipment reaches the end of its useful life and as in only a few years the country will be in a position to take part in the

/regional rolled

regional rolled products export trade, there will have to be short-term expansion of over all production capacity. On this basis it is estimated that the most suitable technical structure for the rolling division will be a continous casting plant integrated with a combined plant for light shapes, strips and wire, of a capacity of 120,000 tons a year and consisting of a fully automatic preparing mill and continuous preparing and finishing mills.

(iii) Location. Valentines, Colonia and two alternative sites have been analyzed as possible locations. It has been advised that the ore pre-selection, ragging and concentration plant be situated in Valentines and the agglomeration, reduction, steel manufacture and rolling plants in land which it is planned to reclaim from the River Plate, next to Villa del Cerro. The favourable effect on sales cost of the economic advantages of this solution have been calculated, in dollars per ton, as follows: exported nodules, 1.05; exported pig iron, 1.30; rolled goods produced, 1.50. The proposed solution is based on technico-economic considerations; the final decision should take other factors into account, particularly those which may eventually be put forward by the department of Urban Development of the Departmental Council of Montevideo.

(iv) Investments needed for iron and steel development. The estimates are given in table 25.

(v) Financing. It is advised that share capital be kept at a relatively low level to ensure adequate profits for shareholders; it will be necessary therefore, to resort to long-term credits and reserves. The financing structure proposed is roughly as follows:

	Percentages	
Share capital		35
Long-term credit		
- Bank of the Republic	2	
- International Organizations	29	
- Private banks and supplies	19	50
Reserves and other resources		15

/Table 25

Table 25

URUGUAY: OVERALL SCHEDULE OF INVESTMENTS IN THE IRON AND STEEL SECTOR
(In current dollars)

Years	Investments
1	219 000
2	9 697 000
3	3 400 500
4	5 680 000
5	11 050 000
6	10 340 000
7	5 320 000
8	2 820 000
9	319 500
Total	58 906 000

Analysis of the overall investments by headings is as follows (in current dollars);

1.	Research and preliminary studies	60 000
2.	Land and natural resources	804 500
3.	Buildings	18 485 500
4.	Industrial equipment and installations	24 460 000
5.	Study, project and technical guidance	5 096 000
	Total	58 906 000

It is estimated that the long-term credits can be obtained on the following conditions:

- International organizations: amortization at 15 years, with 4 years of grace and 5.5 per cent annual interest.
- Private banks and suppliers: amortization at 12 years, with 4 years of grace and 6.25 per cent annual interest.

/(vi) Sales

(iv) Sales price policy. Exportable products will be sold at international prices, pig iron for the internal market will have a price similar to that of imported pig iron menees customs tariffs and currency exhange charges, and the price of rolled products will obviously tend to approximate to those obtaining in the internal markets of the developed countries.

(vii) Effects on employment. The Valentines project will create jobs for a total of 1,800 persons, distributed as follows: 60 in management posts, 150 in intermediate posts, 290 skilled workers, 450 semi-skilled workers, 570 labourers and 280 administrative and service staff.

(i) Activities preliminary to the execution of the project

The preliminary groundwork and studies should be undertaken with urgency in order that there should be enough information available to carry out the trial and full-scale iron and steel development projects. The work to be done comprises:

(i) Further topographic, geological and petrographic prospection of the area of the deposits

(ii) All research needed for extraction;

(iii) Study of representative samples to determine the method to be used in ore concentration;

(iv) Study of the most suitable methods for agglomerating the concentrates;

(v) Study of the industrial electric power and water supply in Valentines;

(vi) Systematic exploration of the linestone and dolomite and bentonine deposits of the Minas Department;

(vii) Study of a port reconstruction works at Montevideo;

(viii) Joint study with ANCAP to determine a suitable method of fuel interchange;

(ix) Establisment of transport bases for conveying over to the steel plant;

/(x) Establishment

(x) Establisment of an executive commission to co-ordinate all preliminary activities and take charge of problems relating to the development of the industry;

(xi) Preparation of a bill for promotion of the industry and of the decrees which are to govern its activities;

(xii) Determination of a suitable structure fot the iron and steel company.

(j) General conclusions on the feasibility of iron and steel development

(i) General comment. The nature of the combination of technico-economic factors by itself justifies the adoption of executive measures towards carrying out a project for exploiting the Valentines deposits.

(ii) Salient characteristics of the changes which will be produced in the iron and steel sector. Production costs and sales prices of end products will be greatly reduced. While the value added by the metallurgic sector will be important enough in itself, the direct and indirect effects of the availability of low cast steel in the internal market on the gross domestic product - which cannot easily be determined quantitatively - will be still more so.

(iii) Effect on the trade balance. Increased exports and import substitution will together produce a savings of nearly 21 millions a year by 1980, which means that the total investment in iron and steel development of 59 million dollars will be returned in less than three years, a term which may be considered very short.

The total exports of the sector, which will begin in the fifth year of the project at 8 million dollars, will grow to a maximum of 10 million dollars in the eighth year and then begin to decrease, reaching 10 million at the end of the period studied.

The effect of import substitution will begin in the fifth year, at 8 million dollars a year, and will reach 17.5 million in the twelfth year, with an accumulated effect over the period studied of 110 million dollars in the current account.

/Chapter IV

Chapter IV

PLANS OR PROGRAMMES OF INDUSTRIAL DEVELOPMENT

1. Introduction

It may be remarked that during the last few years the several instruments of economic policy have generally been applied in the industrial field to solve short-term problems and without any settled strategy. However, the problem created during these years by the bottleneck in the balance of payments has encouraged the adoption of measures which during the last two have been designed especially to promote exports of non-traditional products. The measures applied, which are still in force, were the abolition of the exchange drawbacks on the export of certain industrial products of agricultural base and the return of up to 20 per cent of the f.o.b. value of the product, for taxes payed on non-traditional industrial merchandise exported. Furthermore, as long as the double rate of exchange obtained for non-traditional exports dollars and other foreign exchange were converted into national currency at the free or parallel rate of exchange.

2. Antecedents of the industrial plan

In January 1964 the Investment and Economic Development Commission, as a result of the submission of the Estudio Económico del Uruguay made by it, was entrusted with the task of formulating an economic and social development plan using as a basis the section of that study which had been concerned with policy making.

The plan was to contain:

(a) A ten-year plan to be mainly concerned with objectives;

(b) A three-year plan to comprise:

(i) the institutional and organizational reforms necessary;

(ii) The economic policy measures for allocating public investment and orienting the private one which will tend to increase productivity on the basis of maximum use of human resources;

(iii) an investment financing programme.

/This plan,

This plan, which was submitted to the Government in October 1965 and approved by the Council of Government in February 1966, contains programmes for each of the several economic and social sectors within the frame of reference of the overall plan.

The industrial plan, therefore, forms part of an integral plan proposed for the country as the point of departure for a process of permanent planning.

3. Characteristics of the plan

The fundamental characteristics of the proposed industrial plan are:

(a) its scope: the plan is of national scope;

(b) its overall relatedness; it covers all industries within the framework of the economy as a whole;

(c) its levels of penetration; apart from the consideration given to macro-economic aspects, it has included more detailed study of several industrial activities, based on a series of factors such as their relative importance, availability of their resources, attitudes of the private sectors, etc.

The objectives of the industrial plan are related to the more general objectives contained in the economic and social development plan. Thus, the former proposes the increase of the gross industrial product at a cumulative annual rate of 6.2 per cent during the decade 1965-1974. This is related to the 5 per cent rate projected for the whole economy on the basis of present productivity and envisaged of the future levels needed for stable growth.

Expansion and diversification of industrial exports are projected, as it is the only means of overcoming one of the main structural limitations on development - the narrowness of the internal market - and reducing the present vulnerability of foreign trade resulting from its dependence on sales of practically unprocessed raw materials, whose position in the international market is becoming gradually more unfavourable. It is expected that industrial employment will increase by absorbing unemployed manpower and part of the new contingents which are swelling the labour force; it is also expected that the elimination of under-employment, more efficient use of the whole range of productive resources, and technological progress will increase average manpower productivity.

/Better utilization

Better utilization of capital goods is projected, through utilization of the present idle capacity of productive equipment (an average of 37.5 per cent idle for industry as a whole, according to the survey mentioned above), their gradual renewal, and reasonable expansion in those items where it is justified.

4. Strategy of the programmed industrial development

The attainment of the objectives of the industrial plan must depend on the special conditions of the Uruguayan economy as regards to its availability of resources and its present degree of development. These conditions dictate a certain type of strategy for the industrial development envisaged and suggest specific objectives for the sector.

In the first place, the country possesses an extraordinary wealth of agricultural land. As is shown in the plan for the agricultural sector the production from this can be greatly expanded, which means that in the middle term agriculture may become the basis motive force of the sector.

This immediately suggests two specific objectives for the industrial sector:

(a) Intensified development on the part of the agriculturally based traditional industries;

(b) The introduction and rapid development of other, non-traditional industries which can process the largest possible volume of raw materials derived from agriculture.

On the other hand the country must not disregard the lessons which can be derived from the rest of the world, where the industrial sectors of the fully developed countries are widely diversified and have as their most dynamic members industries not based on agriculture. The country should, therefore, discover definite markets for economic activities in the field of industries such as these; it is this which in the long run can make industry the moving force of the economy. However the narrowness of the international market, which in many cases excludes the advantages of economies of scale means that the expansion of these industries must be carried out complementary through the medium of exports. And for this it will be necessary to make every effort to achieve the highest degree of efficiency in production, in

/order to

order to gain a competitive position in the international market; this means: low costs, good quality and uniformity in production. With these aims in mind, the country should make every effort towards maximum participation in the integration process which is being carried out through the medium of the Latin American Free Trade Association.

These considerations, while making obvious the specific objectives of the industrial plan have meant that a series of pragmatic and tentative criteria have had to be applied in its actual formulation; these will have to be refined as experience reveals their shortcomings and as the institutions which are at present non-existent or useless are brought into operation.

Attainment of the objectives mentioned depends on the fulfilment of certain conditions which deserve further comment:

(i) Industrial promotion should be carried out within a framework of integral programming which takes into account all the different factors influencing industrial development;

(ii) Promotion should be absolutely specific not indiscriminate, having as its object fully programmed activities or branches which State promotion measures will be intensively applied and which will thus become attractive to private investment;

(iii) It should be made much more effective by operating through concrete projects on which the machinery of the plan and of the specific programmes can act;

(iv) Industrial policy should be concerned with the additional fields relevant to the establishment of adequate infrastructures for longer-term development, in particular:

- Development of information on and exploitation of the natural resources necessary to industrial activity;
- Progress in industrial technology, by encouraging applied research;
- Promotion of training schemes for the human resources engaged in industrial activity at all levels;
- Promotion of more efficient organization of the resources available for industrial exploitation, by systematically applying the findings of productivity studies out the sectorial and enterprise levels;

/ - standardization

- Standardization and improvement of production quality, by combined use of a technical standards system and control of quality methods.

5. Targets of the industrial plan

(a) Production

The industrial development projected for the decade 1965-1974 will raise the physical volume of production at the end of the decade to a level 93.6 per cent above that of 1963.

This increase will be related to the growth of internal demand, to the rise in exports and to the import substitution process. Of these three factors the most important will be internal demand for manufactures, which will amount for 62.5 per cent of the total; it will rest on the increase of demand for non-durable and durable consumer goods, on the demand of all productive sectors of the economy for raw materials, and, to a smaller extent, on demand for domestically produced capital goods. The projected growth is based on population increase and on the rise in consumption capacity which will result from increasing national income.

Exports will account for 33.7 per cent of the predicted increase of the decade: they are expected to triple during the period. (See table 1 of annex I.)

The share of import substitution as a factor of growth will be only 3.8 per cent of the total increase. This percentage indicates that during the decade projected the country will not have reached a favourable position for undertaking the advanced stages of substitution in the field of production of the raw materials and capital goods at present imported.

The estimates of the share of domestic consumption in demand for industrial products are calculated from a number of projected expansions of industrial supply, which in some cases are to be carried out by entrepreneurs on their own account and in others as a result of industrial policy decisions; they are also calculated from overall projections of different productions and from the detailed estimates which form part of these.

In accordance with the growth of demand envisaged, the group of traditional industries will grow at a cumulative annual rate of 5.6 per cent and the non-traditional industries at 7.5 per cent. The largest increases

/will occur

will occur in the leather industries, with 10.5 per cent a year, the chemical industries, with 9.1 per cent, and the electrical industries, with 8.9 per cent. Table 26 gives the targets set for domestic production for the years 1967 and 1974 compared with the real values of production in 1963

Table 26

URUGUAY: TARGETS FOR INDUSTRIAL PRODUCTION IN 1967 AND 1974, COMPARED WITH REAL VALUES OF 1963

(In millions of dollars 1963 ex-factory value)

Division	1963	1967	1974	1963/67 % △	1963/74 % △
20-21	339.8	396.7	551.4	16.7	62.3
22	21.5	24.3	31.7	13.3	47.7
23	233.4	300.9	460.4	28.9	97.2
24	50.0	60.7	90.0	21.5	80.0
25-26	19.8	28.0	46.0	41.7	132.8
27-28	41.7	51.2	74.7	22.8	79.3
29	9.9	21.8	41.0	104.8	284.9
30	15.6	21.4	36.4	36.9	133.2
31	71.9	99.3	182.5	38.0	153.7
32	58.7	67.9	99.8	15.7	70.1
33	27.1	43.1	66.1	59.3	144.1
34-35-36	52.8	74.7	129.7	41.6	145.8
37	43.1	55.7	99.5	29.3	131.2
38	53.9	67.0	101.6	24.4	88.6
39	16.8	21.2	34.4	26.1	105.2
Total	1 056.0	1 333.9	2 045.2	26.3	93.6

/(b) Employment

(b) Employment

The projected industrial development will jobs for 63,000 persons in the sector, which represents an increase of 32.5 per cent on 1963; industry will altogether employ 257,000 persons as against 194,000 in the base year. Since industrial production will grow by 93.6 per cent, it is clear that there will be a large average increase in productivity per person employed in industry - 46 per cent for the decade. This increase will be the result of the elimination of under-employment, of technological improvement produced by expansions of capacity and replacement of equipment, and of application of methods of industrial rationalization.

The projected employment structure shows a trend towards a proportional decrease of employment in the traditional sectors, except in the leather industry on account of its dynamic export programmes and in furniture and fixtures, on account of its connexion with the housing programme.

Table 27

URUGUAY: PROJECTED STRUCTURE OF INDUSTRIAL EMPLOYMENT

(Percentage)

Industry	1963	1967	1974
Food and beverages	26.9	25.9	23.5
Tobacco	0.5	0.5	0.4
Textile	10.4	10.0	10.4
Wearing apparel and footwear	13.9	13.7	13.1
Furniture and fixtures	5.8	6.2	6.8
Paper and printing	3.7	3.6	3.7
Leather	1.1	1.4	1.6
Rubber	1.5	1.5	1.7
Chemical products	4.2	4.0	3.4
Petroleum derivatives	3.9	3.8	3.5
Building material	3.6	3.8	4.6
Basic metals and metal-transforming	9.0	9.9	10.2
Electrical industry	3.9	4.0	4.4
Transport material	8.6	8.7	9.4
Miscellaneous	3.0	3.0	3.3
Total	100.0	100.0	100.0

/The metal-transforming

The metal-transforming and electrical industries are expected to provide the largest increases in employment with an estimated 20,000 persons, followed by the food industry, with 8,000, wearing apparel, with 6,500, and textiles and furniture and fixtures, with 6,000 each.

The increase in employment between 1963 and 1967 will be 16,600 persons. It is also estimated that by the latter year industrial expansion will have been able to absorb all existing under-employment.

(c) Investments

In order to carry out the industrial programme gross investments amounting to over 660 million dollars at 1963 prices will be needed over the decade; 307 millions of these will be needed for imported capital goods. Table 28 gives a summary of the estimates which have been made.

Table 28

URUGUAY: ESTIMATE OF GROSS FIXED INVESTMENT IN THE INDUSTRIAL SECTOR, 1965-1974

(In millions of dollars of 1963)

	Net			Replacement			Gross investment
	Domestic	Imported	Sub-total	Domestic	Imported	Sub-total	
Buildings	69.4	5.2	74.6	70.7	6.0	76.7	151.3
Machinery	84.2	129.9	214.0	133.8	167.2	301.0	515.0
Total	153.6	135.1	288.6	204.5	173.2	377.7	666.3

These estimates were made on the basis of:

(i) Installed production capacity in the separate branches of industry and its degree of utilization, data which were investigated by the 1963 survey of industrial activity;

(ii) The composition of the fixed assets of each branch of industry for 1963, divided into buildings and machinery and equipment;

(iii) The sizes of the domestic and imported proportions of the invested goods, for both buildings and machinery and equipment;

/(iv) The

(iv) The relations between the values of investment and production appearing from the survey mentioned, calculated in terms of the real production and the production corresponding to the proposed targets for the degree of utilization of installed capacity;

(v) The marginal relations corresponding to known investment projects;

(vi) The amounts of the ten-year production targets for the different branches of industry.

For the purposes of the net investments estimates it was taken that the degree of utilization of installed capacity would increase to up to 80 per cent of the maximum, for as long as growing demand required increases of production.

As regards expansion of installed capacity in industries where it is needed, it has been assumed that two-thirds of the expansion would be carried out by existing enterprises and the other third by new enterprises. This assumption has been universally applied to the industries studied.

The estimates of investments in replacement have been made taking the useful life of machinery and equipment as 20 years and of buildings as 50 years.

Table 29 gives the composition of fixed investments by industrial branches. The largest, as regards the period as a whole, are those of the textile and food industries, where they represent 24.2 and 20.3 per cent of the total gross investment respectively. These two groups also come first with respect to net and replacement investments considered separately. The chemical, basic metal and electrical industries come next in order of importance in the investment projection.

All industries are expected to make investments in replacement of equipment which has reached the end of its active life or is obsolete; these replacements include modernization of equipment and should even be taken as covering replacement of establishments with unsuitable technical processes, size and location by others which meet the requirements which may be established for these three factors.

/Table 29

Table 29

URUGUAY: PROJECTION OF INVESTMENTS, IN NATIONAL AND IN FOREIGN CURRENCY, IN THE PRIVATE INDUSTRIAL SECTOR, 1965-1974

Period 1965-1974

(Expressed in millions of dollars of 1963)

Division	National currency	Foreign currency	Total
20-21-22	89.8	83.1	172.9
23-24	93.4	81.5	174.9
25-26	10.3	5.8	16.1
27-28	17.2	15.8	33.0
29	11.0	7.3	18.3
30-31	34.8	28.3	63.1
33	17.3	11.7	29.0
34-35-36-38	53.4	49.7	103.1
37	20.1	14.8	34.9
39	10.7	10.2	20.9
Total	358.0	308.2	666.2

6. Organizations with executive responsibility in industrial development

In the present institutional structure, the responsibility for preparing policies and directing the instruments of development is divided among several organizations, some of which are almost completely autonomous.

Credit, taxation, services rates, wages are all administered by different bodies, which usually act without co-ordination. The absence of objectives and programmed targets has been reflected in the dis-proportionate incidence on costs of some of the financial mechanisms for which the State is responsible, such as social security charges, indirect taxation, import tariffs, port dues, etc.

There has been no trace in the management of industrial credit of the use of selective criteria to provide incentives for particular industrial activities; it has, in fact, been applied indiscriminately, on the basis of the previous financial solvency of the applicants for the loans.

/This situation

(iv) The relations between the values of investment and production appearing from the survey mentioned, calculated in terms of the real production and the production corresponding to the proposed targets for the degree of utilization of installed capacity;

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/This situation

This situation is partly due to the lack of any planning process which would be able to determine objectives and priorities. It is also due to the inefficient functioning of the public departments which retain a form of organization which could well be altered. It is lastly to a considerable extent due to the lack of institutional co-ordination, which results from legally constituted autonomous powers.

For these reasons the plan proposes several institutional reforms, which in the case of the industrial sector will essentially concern the Ministry of Industries and Labour and the Bank of the Republic.

(a) Reform of the Ministry of Industries and Labour

If a planning process is established, the Ministry of Industries will be the body responsible for executing the industrial policy laid down in the plans and for preparing the changes of strategy to be made in the future in order to adapt it to the evolution of the economy as a whole and of the industrial sector in particular. It will also, in a country whose sectorial planning must necessarily be decentralized, have the function of formulating plans, which will then be co-ordinated at the level of the general planning organization. Lastly it will have to ensure the maintenance of co-ordination in the direction of the industrial policy instruments. The industrial promotion bill which forms part of the plan assigns it multiple functions of this type.

It is realized that under its present structure the Ministry of Industries and Labour cannot spare the attention needed for the problems of industry while it is still required to look after other matters such as those relating to the legislation and disputes of the labour sector, which from their nature demand immediate consideration by this Secretary of State.

The projected reform proposes that the labour department should be separated from this Ministry and either established as an independent ministry or, under a different criterion from that which classed it with industry, combined with some others. Several other departments which have nothing to do with industrial problems would also be removed.

On the other hand, it seems proper to extend the sphere of the ministry to other fields which are obviously connected with the policy and problems of industrial development.

/In sum,

In sum, it is proposed that a ministry of industry and commerce be formed, which will also attend to the problems of energy policy, and which will have the following functions:

(1) (a) To formulate overall plans of industrial, mining and electric power development, maintaining for the purpose contact with the relevant state organizations through the Permanent Committee of Promotion and Co-ordination;

(b) To formulate development programmes for specific industries; to formulate of industrial, mining, electric power and prices policies;

(c) To co-ordinate the instruments of industrial promotion (feasibility studies, direction of technological programmes, markets, etc.);

(d) To take part in fixing criteria of priority for specific programmes;

(e) To assess the manner of execution of the programmes and of industrial policy;

(f) To assess the public sector's industrial trial projects.

These functions will all be carried out by one department, the programming and policies office, which will act as an advisory bureau for the ministry in connexion with points 1-a, 1-b and 1-c. It will also have the further functions:

(g) Co-ordination of the technical organizations subsidiary to the ministry;

(h) Co-ordination with other state services and with private activity;

(2) (a) To organize and maintain a register of private and public industrial enterprises, both manufacturing and extractive;

(b) To compile economic statistics and technical information on industry, and also information on the legal provisions which govern its operations and on the availability of national and international technical assistance;

(c) To advise industrialists and potential investors on the matters mentioned in the two points above and on the official bodies through which they must arrange their different affairs;

(d) To make surveys and studies of specific industries;

/(3) (a)

(3) (a) To take part in the execution of industrial policy;

(b) To assess the merits of industrial enterprises applying to be admitted to the benefits granted by the promotion law and to disqualify enterprises in the circumstances envisaged by this law;

(c) To ensure that the legal provisions of a technical nature relating to the operation of industrial establishments are carried out;

(d) To establish industrial safety standards and ensure that they are carried out;

(e) To approve technical standards for industrial production;

(f) To direct the control of quality policy and supervise its execution;

(g) To provide assistance to artisan production and smallscale industry.

(4) (a) To prepare mineral resources research and and development programmes and supervise their execution;

(b) To assess deposits;

(c) To maintain an inventory of known mineral resources;

(d) To make a register of extractive industries;

(5) (a) To supervise the property, economic, financial and industrial administration of the State enterprises.

(6) (a) To make a register of industrial and mining property;

(b) To make a register of patents of inventions and trademarks;

(c) To grant industrial privileges.

The functions described in sections (2) to (6) will be assigned to a general department of industries, whose sub-departments will be: a department of industrial information and technical advice (2); a department of manufacturing industries (3); a department of extractive industries (4); a department of state industries (5); a department of industrial property (6).

(7) To co-ordinate the producers of energy and fuels with a view to:

(a) preparing programmes of energy development;

(b) preparing the policy for energy and fuel tariffs;

(c) supervising the execution of such programmes and policies

/These functions

These functions will be assigned to the energy department.

(8) (a) To organize and maintain a registry of commercial enterprises, including consumer co-operatives;

(b) To compile trade statistics;

(c) To take part in preparing, executing and supervising the prices policy;

(d) To make studies of production and marketing costs and carry out research on the middleman stages in trade of raw materials and important products;

(e) To approve technical standards for trade and supervise their application;

(f) To provide information on commercial matters

The functions described in section (8) will be the responsibility of the commerce department.

(b) Bank of industrial promotion

The universal recognition that industrial promotion credit and the other instruments which operate in combination with it have special characteristics, which make it necessary that they should be in the hands of a specialized banking institution, has still not been accepted in Uruguay.

The state body concerned with industrial credit is the Bank of the Republic, a highly complex institution which combines the functions of central, trade, and industrial and agrarian credit bank.

But industrial credit is not simply a form of current credit, for it should be granted selectively to industries whose installation or development is of special value and should, therefore, carry more lenient conditions than those of ordinary credit. Loans should only be granted to projects which have been subjected to previous assessment in respect of their technical, economic and financial characteristics. This assessment should include tests of the capacity of the entrepreneur to carry out his project efficiently. The securities on the loans should be essentially based on the fixed assets that the projects generate, in which case, given the long periods needed to carry out most projects, the lending bank must provide technical assistance and supervision and superintend the management of the enterprises concerned, if necessary taking shares in them, until the loaners have completely redeemed their liabilities.

/If a

If a trade bank is to co-ordinate its policy with the objectives of the development plans it must control and organize the internal and external savings resources needed, in order to channel them into priority projects, in accordance with the relevant programmes.

These requirements, and others which will be mentioned in the section on credit policy for development, make it obvious that a development bank must conduct an aggressive policy and be prepared to take risks; it cannot, therefore, be combined with the Central Bank which, as the body responsible for planning and directing monetary policy, has to act according to conservative principles. For this reason the development plan proposes that the Central Bank should be established as a separate entity together with the Department of Foreign Business Transactions, and that the Bank of the Republic should be reorganized as a bank of industrial and agrarian development.

It is proposed that the development bank, besides carrying out the functions mentioned, should be responsible for making feasibility analyses on the installation of new industries, in which case it could sell studies of projects whose viability has been proven to interested private entrepreneurs and they recoup its expenses in making them. The expenses of studies of projects proved not to be viable should be considered as part of the cost that any community must pay which desires to become industrially developed.

The bank will also have the power to instal industries whose viability has been proved by its studies and which it is desired to reserve as the exclusive province of the State, or those of obvious value whose installation no private entrepreneur is prepared to undertake; in the latter case, once the industry is installed, it could pass into private ownership at any later time, at the discretion of the State.

Apart from this group of functions it seems that the bank, which must be amply provided with financial resources and also have a team of qualified technical personnel for matters of economics and enterprise management, would be the appropriate agency for making state investments in enterprises in which its capital would be combined with either domestic or foreign capital: in the first case it could form mixed enterprises in industries

/where the

where the existence of state interests is desirable, and in the second it would be the domestic partner of industries of foreign origin whose installation in the country is promoted and in which private capital does not take part.

To sum up, the functions of the development bank in the industrial field could be as follows:

(1) To assess projects;
(2) To make studies of the prospects of new industries;
(3) To formulate projects;
(4) To administer promotion credit;
(5) To provide technical assistance to back up the credit;
(6) To supervise enterprises;
(7) To set up new activities;
(8) To train managers and directors of enterprises at the national level;
(9) To conduct activities not undertaken by the private sector;
(10) To channel savings towards priority activities;
(11) To share in joint financing of enterprises with domestic or foreign capital.

7. Sectorial programmes and organizations with sectorial responsibilities

The programmes for the development of specific industrial sectors form part of the integral industrial programme; their main characteristics have therefore been described in chapter III of this report.

8. Private initiative in industrial programming

Although Uruguay has formulated its first economic and social development programme the planning process cannot yet be considered as fully established; consequently, there is as yet no institutional machinery for directing the part to be played by private initiative in programming.

In a mixed economic system such as that of Uruguay, where development takes place within the private sector, the participation of entrepreneurs and workers during the preparatory period of the plan was of fundamental importance, as was seen at two different levels:

/(a) In

(a) In the industrial sectors for which detailed programmes were prepared, private entities were consulted in connexion with:

(i) Supplying the basic information needed for projections and identifying the problems confronting these industries;

(ii) Identifying investment projects in different stages of development;

(iii) The viability of the production targets;

(iv) Technical changes in progress;

(v) The policy measures most effective for achieving the targets set up, etc.

Participation by entrepreneurs at the level detailed programmes was different in different activities, according to the ability of the entrepreneurs concerned, the importance of the establishment, and other factors.

(b) At the level of the overall industrial plan the general principles to be used in formulating the industrial policy were discussed very fully with the entrepreneurs and somewhat less fully with the National Workers Convention. The discussions were of a bilateral nature, for there was not enough time to organize the joint discussions which were originally intended.

The industrial plan envisages that the machinery for consultation with the private sector will be institutionalized. It is acknowledged that knowledge of the needs and possibilities of specific activities, especially as regards the immediate future, are more within the reach of the private sectors, entrepreneurs and workers, than of the public sector. It is important that these sectors should be in agreement with the plans as a result of having taken part in determining targets, in allocating investments and priorities, etc. For these reasons the industrial promotion bill proposes that advisory commissions should be established for each specific industry or industrial division to supply whatever information and co-operation is needed for programming. These will consist of representatives of owners and workers and will work in contact with the technical organizations of industrial planning.

/Chapter V

Chapter V

POLICY MEASURES FOR INDUSTRIAL DEVELOPMENT

The industrial plan is intended to give shape to an industrial economic policy having coherent objectives and co-ordinated management of its different instruments.

The short-term policy objectives are:

(a) To obtain greater utilization of installed capacity;

(b) To use financial resources to make timely and adequate investments in industries where they are needed and which have a programmed structure;

(c) To ensure that the desired overall values and the projected structure of production are achieved, in order that internal demand may be satisfied and the projected exportable surpluses obtained;

(d) To achieve the employment targets.

As regards the field of industrial policy specifically, it is proposed to make use of fiscal, taxation, monetary and financial instruments, as well as measures for regulating the industrial system.

The fundamental principle of the proposed system of promotion will be selective than indiscriminate support of industries. It has been decided that the development plans will themselves establish the list of industrial activities to be declared in promotion, though it is considered that the entrepreneurs, individually or collectively, should have the right to apply for enrolment of their activity in the list and to prove that it fulfils the required conditions.

1. Fiscal and taxation instruments

(a) Firstly, income tax exemptions to amounts corresponding to profits reinvested in fixed asset goods are proposed for several of the industries in promotion: this is designed to increase use by enterprises of their own savings for investment in goods of this type and thus to obtain from the industry concerned the maximum possible contribution to the programmed investment targets; this, by decreasing the contribution of credit, will create a considerably more stable financing structure in private industrial investment.

/As was

As was shown above, the different branches of industry need different sums invested; in some production capacity must be expanded as well as equipment replaced; others only need to have equipment replaced, as they possess idle capacity. In general, therefore, the former should have higher percentage income tax exemptions than the latter. Future exceptions to this rule might be justified by further needs for re-equipment arising in certain specific industries as a result of modernization programmes.

(b) Secondly, tax exemptions intended to encourage investment by diminishing the cost of equipment for the industry using it will be introduced. These will consist of reductions in the customs duties, surcharges, previous deposits, port dues and bank charges payable on imports of capital goods. These exemptions as applying to industries in promotion, will also discriminate between those needing both to expand their capacity and to replace their equipment and those which only need to replace obsolete equipment. The comments made on the income tax exemptions can be applied here.

(c) Thirdly, tax incentives for production will be created by means of several types of measures:

(i) By exemptions on the customs duties, surcharges, previous deposits, port dues and bank charges payable on imports of raw materials for certain industries in promotion, namely these which input raw materials for production export goods. Though temporary admission anyway exempts them from some taxes, the projected exemptions go further;

(ii) By establishing protective duties on import of finished articles which would compete with those produced by industries in promotion;

(iii) By exempting from tax commercial and agricultural transactions which form part of the trading of the raw material inputs of approved enterprises belonging to industries in promotion.

As an export incentive, it is proposed that exports made by approved enterprises should be exempted from the corresponding taxes.

To encourage specialization in industry, it is proposed that the tax on trade transactions be abolished or converted into a tax on the value added.

/With a

With a view to achieving the projected targets for installed capacity utilization it is recommended that:

(a) Exemptions be established on the trade transactions tax and the income tax, in favour of enterprises using their installed capacity in supplementary shifts;

(b) Taxes be imposed on enterprises working less than the technically viable number of shifts;

(c) Exemptions in promoted industries be made greater for enterprises using supplementary shifts;

The special programme for installed capacity utilization gives more detailed consideration to the way in which those measures will operate.

To prevent monopolistic practices and encourage efficient use of resources, it is proposed:

(a) That taxes on import of merchandise competing with products of domestic industry be reduced according to the difference between the prevailing domestic price and the international price of commodities of comparable quality. In this case there should be, along with the exemptions, import quotas established for the merchandise exempted in direct proportion to the size of the price differences;

(b) In the case of any import substitution of industrial inputs under which more stages of processing are carried out within the country, the surcharges to be levied on the raw material substituted will equal the amount of the internal transaction tax.

As the taxation measures will be more effective if they have a certain degree of permanence, it is proposed that they should remain in force for a period of five years; the amounts of the exemptions will be determined specifically for each industry to be promoted.

2. Monetary and financial instruments

The channeling and use of internal credit, as also the use of external resources as an effective instrument of industrial promotion, requires that all such resources be reserved in proportions sufficient for the investment needs of the plan and for the projects to be carried out by the private sector according to its goals and within its framework.

/Given that

Given that the plan cannot attempt to direct the use of the whole credit available for the industrial sector, the quantitative allocations of credit should theoritically cover two sectors:

(a) Credit to be selectively directed by the plan towards its promoted activities and its utilization and expansion programmes for installed capacity;

(b) The remainder, to be allocated by the banks in connexion with current demands for circulating capital and investment funds.

In considering the availability of resources, the means of channeling private and public savings in appropriate directions, i.e. the centralization of external resources and the institutions which manage promotional credit, should be taken into account.

These means consist or will consist in:

(a) Article 5 of Law 13.330, which rules that 75 per cent of savings deposited in private banks should be used in relation to the need of national development, in the form authorized by the Security Council. This should be complemented by making the Bank of the Republic, as the promotions organization, responsible for regulating the applications of this credit and bringing them into line with the economic development plans;

(b) The industrial promotion bill which establishes that the Bank of the Republic shall be responsible for administering the funds of external origin obtained by the country through its official transactions with foreign organizations, whether international, public or private, and which have no specific destinations, as, for instance, state projects for electric power, water, drainage, etc.

(c) The institutions for managing promotion credit which will be:

(i) The Bank of the Republic, as the state organization;

(ii) The corporations for private development, which may broach external savings sources whose funds are not earmarked for official channels, as long as they have close regard to the country's overall capacity for external liabilities;

(iii) The private banks, to the extent that they act as agents of the Bank of the Republic, by using their deposits for purposes which are among those prescribed by the development plans.

/The industrial

The industrial plan distinguishes the following classes of credits:

(a) Those for making net investments and investments in fixed asset replacement, and for productivity studies, training, technological research, control of quality, technical assistance, and research on raw materials;

(b) Those for purchasing seasonally produced raw materials, financing exports, forming export co-operatives;

(c) Those for making pre-investment studies, preparing projects, making market studies, etc.;

(d) Those to meet needs for circulating capital. In calculating the amounts of the credit lines to be established for such class of loans the following factors should be taken into account:

(i) The estimated amounts needed for each use;

(ii) The quantities of the different possible sources of funds apart from credit;

(iii) The targets proposed for modifying the past financing structure of the enterprises;

(iv) The total availability of resources among the credit organizations, taking into account the need to conserve credit capacity for the period following that of the programme.

The amounts of the loans must be related to those of the credit lines and also to the importance which may be assigned to the projects for which they are to be used in each particular case.

Selectivity criteria related to the overall objectives of the economy and the particular objectives of the sectors should be applied in allocating credits. For this it is essential that the organizations which manage industrial promotion credit in accordance with the development plans, should require the enterprises or potential investors interested to submit the project to them for consideration.

The technical, economic and financial feasibility of each project must be assessed, using criteria which take account of the special conditions of the industry concerned. These criteria can refer, depending on the nature of the case:

(i) To the product-capital ratio, taking account of the direct and indirect values added which would be generated by the project and making, if possible, the social evaluation of factor costs;

/(ii) To

(ii) To the direct and indirect effects on the balance of payments, taking into account the net foreign exchange contribution, overall and per unit of foreign exchange investment;

(iii) To the effects on employment: total employment and employment per unit of capital, including indirect effects on employment;

(iv) To manpower productivity, assessed in terms of the value added per man-hour;

(v) To the marginal social productivity of the capital, which corrects the rentability criteria by taking into account external savings, the par rate of exchange and factor opportunity cost.

Besides determining the feasibility of the project, the capacity of the entrepreneur to carry it out should also be assessed: this should take into account the technical, administrative and directive ability of the entrepreneur himself or of whoever will be responsible for the work involved in the project and also the moral solvency of the enterprise, judged from its past record in commercial, industrial and other matters.

Previous presentation of real securities certifying the material fitness of the loanee should become of secondary importance. This is not to say that the organization should completely neglect this factor, but that it takes it into account in a different way: by supervising the correct use of the loans, keeping a close watch on the entrepreneur's management, establishing controls on his accounting system, providing technical assistance, etc., in such a way that the success of the project becomes the true security of the loan.

The promotion organization should be considered a privileged creditor as a compensation for the risks it takes, and the real securities which it obtains from any credit should be put back into the goods which make up the project financed.

The terms of the loans should be fixed on the basis of a general estimate of the prospects of the enterprises for amortizing it in different types of projects. Loans for making fixed asset investments should have the largest term of amortization - from 3 to 10 years, and in exceptional cases more. The possibility of granting a period of grace for beginning the amortization should be considered; this should be at least equal to the

/period comprised

period comprised between the outlay of the funds and the initial operations of the project financed. In some cases loans for financing exports and for preparing projects when they are also connected to their implementation - might be given long terms.

Loans for productivity studies, training, technological research, control of quality, technical assistance, research on raw materials, forming export co-operatives, and market studies should be medium-term - from 1 to 4 years, depending on the case. Loans for restoring the stability of circulating capital might also be medium-term.

Loans for financing purchase of seasonally produced raw materials and for pre-financing exports should be granted on terms of no longer than 1 year.

For other types of loans the general criteria of the amortization capacity generated by the project should be applied.

In order that the loans may be really effective as promotion instruments it is vital that the expenses arising from their constitution and winding up should be reduced to a minimum; they must, therefore, be exempt from every kind of tax. Mortgage deeds and I.O.U.'s should be exempt from payment of registration dues, stamps and seals, and be drawn up on the headed paper of the promotion organizations. These organizations should also officially fix the fees of the professional men taking part in these transactions.

As regards interest rates, it would be expedient to establish the principle of differentiation according to types of loans and according to the priorities which have been assigned to certain investments or which arise from the assessments of the different projects concerned.

It would also be expedient to adopt a further principle of differentiation based on criteria of industrial location, size of the plants relative to the optimum and technological selection.

By establishing allowances for enterprises using two or three shifts when technically possible, interest rates could also be varied so as to provide incentives for installed capacity utilization.

A further financial instrument consists in the official channels through which external credit intended for use in industry has to pass.

/Contraction of

Contraction of external debts is narrowly supervised and, as regards its authorization, largely controlled by the Bank of the Republic. This is not only the sole channel for the largest available sources in the international organizations, but its support is required in most of the cases in which the loan comes from a private source.

In actual fact, many credits are granted on the security of the Central Bank or of some private banking institution. In both cases the express permission of the Bank of the Republic or, where relevant, the Central Bank is obligatory.

The Bank of the Republic's control over a large proportion of the external credit used in the country enables it to support industrial policy by means of the following procedures:

(i) Authorizing the use of credits from external funds in the policy lines and industrial projects of the plan;

(ii) Dictating the terms and amortization conditions under which such credits may be used having regard to the activies which it is desired to promote and to the balance of payments capacity of the country;

(iii) Supplementing use of external credit with credit lines in national currency in order to complete the financial backing of the local investment.

The cases mentioned above were examples of one single pattern of state financial support for the plan, consisting in the granting of different kinds of loans under different term and interest conditions. The same applies to the use of external resources.

The Financial Reform Plan establishes another pattern of credit aid, which will be granted in the form industrial partnerships, and conducted by a special department of the Bank of the Republic.

In its most simple form this will be a development corporation activity, undertaken in the private sector - without prejudice to the work which it is suggested that the development corporations carry out in this sector - by a special department of the Bank of the Republic, which will be subsequentlly converted into a genuine public corporation.

The reason for creating this pattern of aid lies in the well-attested fact that domestic capital is of the too scarce to finance specific

/investments, which

investments, which means that, since they must thus be financed through conventional forms of credit, credit financed investments become disproprotionate in relation to private investment.

In these cases it is more advisable that the promotion bank itself should take part in the investment as a partner, for which purpose it might purchase shares, debentures or other forms of partnership; it would then be entitled to supervise and control the enterprise during the period in which these were being re-purchased by private investors.

This pattern could be of great use in accelerating the development of many of the projects now held up, by the large share of the Bank's credit in the total of their investment.

Lastly, it should be ensured that the promotion bank, in its long-term credits or industrial partnerships, assumes the role of economic or finanial adviser to the projects or programmes which it is paying for, in such a way that credit of this type takes the form of genuine supervised loans, particularly in the field of the industries in promotion.

Credit should be used to strengthen government action towards other objectives. Thus, credits themselves and their different possible interest rates might justifiably be used to:

(a) Cheaper production of goods for general consumption;

(b) Support enterprises which engage to maintain specific stable price levels in conformity with the stabilization programmes;

(c) Encourage enterprises to work more than two shifts;

(d) Support national enterprises which desire to compete with foreign exporters in public bidding for contracts.

3. Regulative instruments for the industrial system

Under this heading the plan contains generic and specific provisions covering the following aspects:

(a) Capital issues controls;

(b) Orientation of state policy towards industrial decentralization;

(c) Antimonopolistic regulations.

Other fields have been considered in their proper place and are discussed in other sections of the overall plan.

(a) Capital

(a) Capital issues controls

The financial reform laws clearly lay down that use of public savings constitutes an act of social import and is thereby liable to regulation and control by the State.

This is especially relevant to the part played by the banks in this use and to the securities market.

As regards this latter, the plan proposes the formation of a special department in the Central Bank, working under the advice of a National Securities Commission, to carry out the following functions:

(i) To approve the issue, quantity, conditions and guarantees of every kind of securities, shares and private partnership offered for sale to the public in the stock market or out of it;

(ii) To order the withdrawal of securities, shares and partnership from the market when they depart from any of the conditions mentioned in the point above;

(iii) To promote and superintend publicity relative to the securities submitted for approval and to the enterprises which issue them;

(iv) To maintain the national register of shares, securities and partnerships.

Effective work on the part of this department and proper execution of the provisions made by the law can be expected to result in sufficient control of securities issues; this will constitute a means of protecting public savings, guaranteeing their proper use in industry and preventing wastage of internal capital sources and will thus serve both to promote particular industries and to encourage public investment in general.

(b) Orientation of state policy towards industrial decentralization

In the course of outlining the different plans mention has been made of the problems which in one form or another arise in relation to the objective of industrial decentralization. Among these may be discussed:

(i) The excessive polarization of population and of secondary and tertiary economic activity in Montevideo and its surroundings. This results in advantages relative to other centres in the interior for which it is difficult to find any compensation (a large consumer market, ease in obtaining raw materials, equipment, repairs, etc., reduced transport costs,

/easy outlet

easy outlet to the exterior, concentration of financial services, facilities for obtaining infrastructural services such as electric power, etc.). The centralization process is advancing in step with the universal trend towards concentration and polarization of industrial activity in existing centres of population.

(ii) The difficulty of forming poles in the interior which provide more than ephemeral attractions. The indexes given in previous chapters bring out the small importance of industry in the interior of the country. This results in an unstable development, which tends to distort the distribution of income and to prevent the process of generating jobs and better living conditions in the interior from having more than isolated and partial effects.

(iii) The need to establish complementary industries in the rural area which can exploit domestic raw material and spread the benefits of industrial growth through the rural area itself, and which can also complement rural activity (e.g. by absorbing seasonally unemployed manpower).

(iv) The existence of enormous regions lacking in all industrial development, in which it is only considered worth developing primary activities; these, therefore, lose relative ground with every further step in the national development.

These facts are sufficiently important to justify the plan in making industrial decentralization one of its objectives and in using, for the purpose, a number of different instruments.

It is recognized that the problem is not easy and that, generally speaking, it cannot be solved by simply dictating some law or decree. Many projects have been circulated in the country but most of them, in spite of their good intentions, have not been based on an understanding of the full significance of the difficulties involved. In general they involve excessive use of taxation machinery and fiscal exemptions, which can hardly provide any incentive capable of permanently outweighing the attractions possessed by the Metropolitan area in so many other respects. A part from this, indiscriminate incentives or these provided simply in relation to distance will not usually be sufficient to solve problems which require the establishment of the whole industrial zones; on the contrary, they usually result in the creation of

/drains of

drains of protected establishments which produce some special item and subsist on that alone, without forming a basis for the further development of programmed industrial poles.

On account of the complexity of the problem the plan makes industtrial decentralization part of the programme for regional development. It should, therefore, be tackled in conjunction with the other development programmes (agrarian, transport, etc.) and on the basis of a politico-economic definition of depressed areas or areas to be promoted by state action.

In the interest of creating dynamic centres or poles in the interior, the industrial programme proposes the following concrete instruments for carrying out combined action under the plan:

(i) The specific exemptions in the taxation and fiscal spheres, credit incentives, etc., as laid down by the Industrial Law, which might be arranged so as specially to favour the location desired.

(ii) The advantages and possibilities which, under the terms of the same law, the State can derive from the creation of areas or zones with industrial inventories;

(iii) The promoted industries legislation, under which the State may directly influence the siting of promoted industries;

(iv) The State's direct control over development projects, by which means it can act specifically and directly at the project level in the interests of industrial decentralization.

These instruments must be used gradually and in such a way as eventually to overcome a contradiction which is bound continually to appear in the immediate future: the need to carry out certain programmes of industrial expansion very rapidly - in which case the present industrial sites of Montevideo and certain specific locations of the interior (the litoral zone, for example) provide the most advantageous conditions; and, on the other hand, the objective of industrializing depressed or non-industrialized areas - for which a longer-term, integral approach is required, liable to delay or seriously to hinder rapid industrialization of the former type.

This contradiction cannot be resolved a priori; rather, the industrial promotion organizations must approach it in every pragmatic style, taking account of the promotion programmes for the different industries and of their own study and assessment of each particular project.

/Meanwhile the

Meanwhile the plan should guide activity in other spheres (transport, energy, communications, housing, etc.) towards forming the infrastructural bases needed for establishing poles of industrial attraction in the interior of the country.

(c) Antimonopolistic regulations

Everywhere in the world, in developed and developing countries, there is legislation concerned with the problem which may be created by monopolistic concentrations as obstacles to a socially and economically desirable development process.

The general aim of such legislation is to attack:

(i) Concentrations of enterprises which distort the operations of the market in favour of the enterprises within the group, to the detriment of healthy competition;

(ii) The rise, prejudicial to consumption, of the general level of prices in the economy produced by this;

(iii) The concentration of property, which occurs at the expense of equitable income distribution and encourages the formation of power groups which extend their influence over the political as well as the economic system.

These general aims have led to the approval of various kinds of specific laws.

In the case of Uruguay, several bills have been introduced in this connexion, involving different instruments for taking action against monopolies. The plan considers as one of its proper objectives the drawing up of a law which, taking into account the aims mentioned above, will provide an additional means of industrial promotion and protection. This work is now in its preparatory stages and will form an integral part of the plan.

4. Manpower training programmes

Present systems of industrial manpower training at the worker and intermediate levels ranges from instruction in public and/or private specialized industrial schools (for building, metal-working, electricity, printing, textiles, ship-building, etc.), to training in the industrial establishments themselves.

/In consideration

In consideration of the fact that training at all levels must, in several aspects, be brought into line with the planning process, the industrial plan approaches the problems of human resource training from the point of view of the requirements which must be met in order to achieve the production targets and the more general and far-reaching objectives of the plan.

The relevant aspects of its programme are as follows:

(a) Quantitative determination of the personal needs of the different branches of industry, taking into account the foreseeable evolution of productivity;

(b) Determination of the future employment structure of each branch in respect of the three basic levels: skilled workers, intermediate personnel and directive personnel;

(c) Analysis of the training needs of the different level, taking into account not only what is needed for efficient exercise of the functions corresponding to each, but also the supply of basic training elements needed to allow mobility from one level to another, changes of job within each one and intercommunication between the different levels;

(d) Study of the teaching methods suitable for each level, including non-traditional methods in order that they can be adapted to the particular circumstances arising from the geographical location of the needs, the previous level of education of the industrial manpower participating, and other factors, in which the training may have to take place;

(e) Co-ordination of the teaching organizations concerned with the different aspects of technical and administrative training at each level.

5. Productivity and industrial extension services

Productivity services are in an incipient stage in Uruguay. There is a Productivity Centre of Uruguay which began to operate in 1965. Its installation was due to a mixed initiative on the part of the Ministry of Industries and Labour and the private sector, supported by technical assistance from International Labour Organization.

It is recognized that productivity studies made in co-ordination with the objectives and targets of industrial programming can be of valuable

/assistance in

assistance in achieving the latter: they constitute one of the instruments for creating in industry the conditions of competitiveness needed for the external market. For this reason the plan includes a productivity programme, whose essential points are as follows:

(a) Productivity studies will be carried out in the promoted industries, according to an order of priorities still be fixed;

(b) In each industry the analysis will be made first at the group level, under an agreement which will be drawn up with the trade union concerned, and subsequently at the level of the individual enterprises of the same industry;

(c) The programme will conform to a schedule whose stages will be established beforehand by consultation with the CIDE;

(d) The studies and the supplementary or regulatory investments which result from them will be financed from supervised loans granted from a credit line which will be established by the Bank of the Republic;

(e) The studies will be made by the Productivity Centre of Uruguay or other suitable entities.

6. Technological research

Industrial technological research is dispersed among different public and private organizations.

The public organizations which carry out applied research work essentially in co-operation with institutes belonging to the technical faculties of the universities and, consequently, play a part in teaching and even in pure research; in some cases they carry out research on problems submitted to them by industrial enterprises. The research laboratory of the National, Fuels, Alcohol and Cement Authority (ANCAP), which is perhaps the best in the country, also belongs to the public sphere.

In the private sphere laboratories are maintained by some of the larger industrial enterprises.

The industrial plan treats applied research as one of the major bases of that infrastructure which is indispensable if the industrial sector is to embrace objectives of wider scope. It is only through applied research that industry can acquire a truly national character under which it supplies

/the internal

the internal and external markets with goods of types characteristic of a development based on full use of the opportunities provided by the nature and relative quantities of the country's resources.

The basic aims of its programme are:

(a) Maximum exploitation of traditionally used domestic raw materials, through research into new processes and products which can help to support the competitive position of these materials in the international market in face of which, especially in the cases of natural textile fibres and leather, modern techniques have developed as substitutes for Uruguayan export products;

(b) The discovery of processes which will enable domestic raw materials to be used as substitutes for the materials which now have to be imported for the different economic activities of the country;

(c) The development of processes which enable imported goods to be produced economically within the country on scales smaller than those at present allowed by technologies created in the more developed countries;

(d) The development of technological processes which require capital and manpower in proportion to the country's supplies of these two factors;

(e) Technical advisory services for industry, to help it solve problems which continually occur in the production processes;

(f) The establishment on a pilot basis of processes applicable in industry whose technical feasibility has been subject to previous analysis.

It is considered that these aims may be best achieved by setting up technological research institutions in the state sphere, whose personnel will be entirely occupied with this work and whose programmes will be directed jointly by the planning organization, the national institutes of professional training, the Ministry of Industries, the University Commission for Scientific Research and representatives from industry.

On account of the limited resources available, the first technological research institutions to be installed will have to be those whose field of operation is related to the traditional industries of the country and the possible industrial uses of the raw materials processed by them.

/7. Standardization

7. Standardization

The Uruguayan Institute of Technical Standards is a private entity, founded in 1939, which is financed by contributions from private enterprises and associates and by grants from state organizations.

It is considered that, if industry is to win new markets with new products, it is highly necessary that a standardization policy supplemented with suitable measures for establishing controls of quality should be developed in order to improve and standardize qualities and reduce costs.

The basic points of the standardization programme are as follows:

(a) The standardization policy should be directed by the State, according to the needs of the country as appearing from industries important in export trade or internal consumption. The directive organization should be based on the Ministry of Industries;

(b) State support for the Uruguayan Institute of Technical Standards, have so that it may have enough resources to fulfil its functions satisfactorily;

(c) Efficient co-ordination must be established between the organization planning the standardization policy and the technical organization which studies standards;

(d) Standardization should cover a wide range, including raw materials, stages of production and characteristics of the product, and all relevant aspects of marketing;

(e) The preparation of specifications and standards for state purchases.

regard to control of quality, the programme establishes the following lines of action:

(a) Establishment of statistical control of quality by the State, to be carried out by the Ministry of Industries;

(b) Determination of controls of quality needed for export products:

(i) Standards and tolerances elsewhere used;

(ii) Identification of the product object of control of quality;

(c) Incentives for establishing controls of quality at the factory level:

(i) Credit,

(ii) State purchases,

(iii) Technical assistance,

(iv) As required for the approval of investment projects;

/(d) Diffusion

(d) Diffusion of methods of control of quality to be used at the factory level:

(i) For raw materials,

(ii) In the determining stages of production processes,

(iii) For finished products and their forms of presentation,

(e) Equipping of control systems in private control of quality laboratories:

(i) Standards for such equipment,

(ii) Sporadic controls of sample selections.

Chapter VI

EXTERNAL ASSISTANCE FOR INDUSTRIAL DEVELOPMENT

External aid to industrial development has been provided basically in the form of technical and financial assistance.

With regard to the former, the Investment and Economic Development Commission (CIDE) has received multilateral assistance from the United Nations Bureau of Technical Assistance Operations, the Economic Commission for Latin America, the Latin American Institute for Economic and Social Planning, the Inter-American Development Bank of the Organization of American States and from the Food and Agriculture Organization of the United Nations.

Practically the whole of international assistance in the industrial field has taken the form of studies of specific industries, technological research and market studies.

The subjects covered were as follows:

- Report on the textile industry
- Study of the metal-transforming industry
- Fertilizers
- Study on the state of the chemical industry
- Expansion prospects of the pulp and paper industry
- Programme of fishing development
- Report on the foot-wear industry
- Exploitation of mines and quarries (marble, granite, talc, dolomite)
- Iron and steel industry (feasibility study)
- Study of the leather industry
- Applied technological research
- Market studies for the sale of certain products in Brazil

The technical assistance operated through the channel of an OAS/IDB/ECLA Advisory Group on Planning, directed by a head of the group responsible for guiding and co-ordinating all work done.

This arrangement had excellent results in Uruguay, and its success is considered to have been largely due to the personal qualities of the head of the group.

/In March

In March 1966 the advisory group will cease to function as such and each expert will be from then onwards under the orders of the organization which sent him. Consequently, the tasks of co-ordinating the assistance, formulating its programmes and supporting the work of the experts will devolve on CIDE.

As regards financial assistance, the Bank of the Republic has received overall loans from IDB, IDA and Eximbank for use in granting sub-loans to the industrial and agricultural sectors.

Some of the major industrial enterprises have obtained loans from the Inter-American Development Bank to finance projects in the meat packing and milk products industries.

It is considered that the country has need of extensive technical assistance in specific fields of industry. For the first time steps have been taken to formulate a technical assistance programme (for 1966) and, although many difficulties have been met with as a result of ignorance of the administrative procedures, of the assistance organizations, experience has been gained which will enable programmes of this type to be substantially improved in future.

Experience has so far shown that the success of an aid mission is related, among other factors, to the quality of expert, the length of his stay in the country, earlier information available, his knowledge of the language of the country and the receptiveness and degree of preparation of the entrepreneurs of the branch studied.

As regards the length of stay, experience shows that although missions in specific fields do not need to last as long as those of more general coverage, they should be made long enough to allow the expert to make his own assessment of the situation by visiting a sufficient number of industrial establishments representative of the activity, belonging to different size strata and geographical situations, and by making contact with entrepreneurs, technicians, sellers of machinery, officials, etc. It is only in this way that they will be able to discover in an industry problems that are invisible to those immediately concerned with it, analyse their causes and suggest means for removing them, which is one of the main purposes of assistance and the source from which the basic lines to be taken in the respective programmes can be derived.

/Annex I

Annex I

STATISTICAL TABLES

Table 2

URUGUAY: MATRIX OF INDUSTRIAL LOCATION

Agrup.	Mont.	Artigas	Canelones	C. Largo	Colonia	Durazno	Flores	Florida	Lavalleja	Maldonado	Paysandú	R. Negro	Rivera	Rocha	Salto	S. José	Soriano	Tacuarembó	Treinta y tres	Total
A 20	12.2696	0.2091	2.4732	0.2634	0.6285	0.2587	0.0727	0.6272	0.3319	0.3669	1.0853	0.3020	0.1341	0.1664	0.6069	0.8807	0.4198	0.1705	0.0867	21.3536
21	6.1384	0.0007	1.0758	0.0065	0.1917	0.0161	0.0008	0.0336	0.3562	0.0120	0.6404	0.0300	0.0039	0.0010	0.1088	0.0726	0.0108	0.0368	0.0028	8.7388
22	3.1097	...	0.0005	...	...	...	...	...	...	...	...	...	0.0002	...	0.0006	...	0.0011	...	...	3.1121
23	10.2433	...	0.940	0.0010	2.5542	0.0004	...	...	0.0003	0.0013	0.1257	...	0.0029	0.0004	0.0001	0.0043	0.0082	0.0011	...	13.0372
24	5.2857	0.0028	0.1064	0.0108	0.0119	0.0060	0.0028	0.0125	0.0074	0.0139	0.0153	0.0034	0.0097	0.0052	0.0144	0.0057	0.0096	0.0071	0.0068	5.5374
25	1.3211	0.0131	0.0822	0.0106	0.0174	0.0034	0.0051	0.0077	0.0076	0.0333	0.0276	0.0042	0.0615	0.0073	0.0832	0.0127	0.0059	0.0049	0.0043	1.7131
26	1.1348	0.0021	0.0071	0.0009	0.0121	0.0065	0.0003	0.0020	0.0019	0.0021	0.0144	0.0020	0.0111	0.0024	0.0121	0.0075	0.0101	0.0033	...	1.2327
27	0.7038	...	1.1169	...	0.5304	...	...	...	...	...	...	...	...	...	...	0.0050	0.2295	...	...	2.5856
28	3.3982	...	0.0054	0.0032	0.0107	0.0025	0.0036	0.0063	0.0025	0.0033	0.0219	0.0029	0.0015	0.0018	0.0195	0.0075	0.0064	...	0.0030	3.5002
29	0.8625	0.0007	0.0025	0.0006	0.0371	0.0034	0.0011	0.0162	0.0002	0.0014	0.3254	0.0002	0.0004	0.0025	0.0116	0.0016	0.0007	0.0031	0.0010	1.2722
30	2.3312	0.0006	0.0130	0.0015	0.0032	0.0003	0.0009	0.0009	0.0032	0.0011	0.0548	0.0011	0.0001	0.0005	0.0086	0.0036	0.0012	0.0096	0.0005	2.4359
31	5.4266	0.0057	0.2594	0.0116	0.0285	0.0233	0.0018	0.0019	0.0032	0.0004	0.0015	0.0013	0.0019	0.0002	0.0234	0.1254	0.0136	0.0113	0.0003	5.9333
32	3.6487	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3.6487
33	3.4436	0.0166	0.3401	0.0098	0.0767	0.0136	0.0047	0.0125	0.4393	0.1764	0.0166	0.0057	0.0069	0.0703	0.0234	0.0903	0.0124	0.0112	0.0080	4.7781
34	1.2632	...	0.1247	...	0.0002	...	...	...	0.0009	0.0003	0.0013	...	...	...	...	...	0.0002	...	...	1.3908
35	3.2568	0.0036	0.0352	0.0118	0.0843	0.0057	0.0026	0.0117	0.0085	0.0046	0.0119	0.0054	0.0049	0.0040	0.0175	0.0102	0.0110	0.0048	0.0026	3.4971
36	3.4118	0.0002	0.0095	0.0028	0.0637	0.0051	0.0008	0.0104	0.0104	...	0.0085	0.0074	0.0013	0.0005	0.0071	0.0051	0.0350	0.0001	0.0001	3.5798
37	4.7578	0.0011	0.0136	0.0088	0.0245	0.0004	0.0005	0.0015	0.0044	0.0077	0.0032	0.0008	0.0006	0.0011	0.0244	0.0020	0.0032	0.0076	0.0035	4.8667
38	4.4619	0.0091	0.1505	0.0290	0.1147	0.0283	0.0357	0.0262	0.0226	0.1463	0.0596	0.0193	0.0178	0.0514	0.0707	0.0365	0.0539	0.0417	0.0819	5.4571
39	2.0924	0.0004	0.0145	0.0012	0.0033	0.0009	0.0011	0.0049	0.0018	0.0048	0.1815	0.0021	0.0031	0.0024	0.0076	0.0034	0.0018	0.0013	0.0011	2.3296
Total	78.5631	0.2658	5.9245	0.3735	4.3931	0.3745	0.1345	0.7755	1.2023	0.7758	2.5949	0.3878	0.2619	0.3174	1.0399	1.2741	0.8234	0.3154	0.2026	100.0000

Source: CIDE, from basic information of the Bank of the Republic.

Note: The element a_{ij} of the matrix represents the percentage of the adjusted value added of manufacturing division "i" in geographical district "j", in the total adjusted value added for the year 1960.

Table 1

URUGUAY: EXPORTS OF INDUSTRIAL PRODUCTS

(In millions of 1963 dollars)

Divisions	1963	1967	1974
20-21	62.0	85.2	161.1
22	.	.	.
23	37.3	57.1	93.7
24	.	0.1	0.7
25-26	.	0.5	0.7
27-28	.	0.1	0.1
29	2.1	11.0	23.9
30	0.4	2.3	7.4
31	6.6	8.2	24.3
32	.	.	.
33	0.3	1.8	5.6
34-35-36	0.3	2.9	15.4
37	.	.	1.0
38	.	.	.
39	0.4	.	0.1
Total	109.4	169.2	334.0

/Table 2

Annex II

FINANCING OF MANUFACTURING INDUSTRY

The analysis of the formation and channelling of savings in the industrial sector could not be completed partly because of the methodological limitations to which this type of study is generally subject but primarily because not enough quantitative information could be obtained.

The terminology used was that of the national accounts, although this produced certain difficulties such as that fiscal creditors could not be determined separately and were included within the heading of short-term creditors; it was also not possible to distinguish loans by bank institutions and foreign loans.

We may add that it has been a study of a financial structure in conditions of inflation.

The work is divided into three parts: the first contains the study of the source and use of funds accounts of a sample of 53 enterprises which are quoted on the exchange and which represent about 18 per cent of the industrial value added; the second contains a more detailed analysis of one of the sources: profits, for which the period analysed could be extended from 1955 to 1963 inclusively, using material provided by the Bank of the Republic for the years 1955-1960; lastly, a short section of concluding remarks has been added.

1. Account of sources and uses of funds for the group of enterprises

(a) Percentage distribution of sources and uses of funds

Tables 1 and 2 give the distribution of the account of sources and uses of funds in 53 industrial stock companies, in which it appears that an average gross investment represented almost 50 per cent of the total for uses in 1961-1963, rising from 51 per cent in 1961 to 56.1 per cent in 1962 and dropping sharply to 42 per cent in 1963.

/Table 1

Table 1

URUGUAY: SOURCES AND USES OF FUNDS FOR 53 INDUSTRIAL STOCK COMPANIES, AT CURRENT PRICES

(Percentages)

	1961	1962	1963
I. Total uses	100.0	100.0	100.0
1. Gross investment	51.0	56.1	42.0
Fixed investment	42.2	34.6	21.0
Inventory changes	8.8	21.5	21.0
2. Financial investment	49.0	43.9	58.0
Special funds and banks	1.6	5.3	19.8
Debtors and outstanding accounts	51.6	32.3	28.0
Advance payments and deferred charges	3.9	2.4	2.3
Other financial investments	-8.1	3.0	7.9
II. Total sources	100.0	100.0	100.0
1. Internal sources	52.9	29.3	30.8
Profit distributed in shares	23.7	9.7	7.2
Amortizations	24.0	16.5	14.0
Reserves	5.2	3.1	9.6
2. External sources	47.1	70.7	69.2
Inflows of capital	12.2	3.4	0.2
Short-term credits	-3.9	44.2	41.1
Long-term credits	12.1	6.2	9.8
Other external sources	26.7	16.9	18.1

Source: CIDE.

/Table 2

Table 2

URUGUAY: SOURCES AND USES OF FUNDS FOR 53 INDUSTRIAL STOCK COMPANIES

(In thousands of pesos of December 1963)

	1961	1962	1963
Total uses	208 691.3	271 947.5	288 643.5
1. Gross investment	106 534.6	152 689.8	121 239.8
Fixed investment	88 073.7	94 042.5	60 697.7
Inventory changes	18 460.9	58 647.3	60 542.1
2. Financial investment	102 156.7	119 257.7	167 403.7
Special funds and banks	3 718.0	14 505.0	57 173.1
Debtors and outstanding accounts	107 715.6	87 775.1	80 784.1
Advanced payments and deferred charges	8 200.9	6 465.7	6 761.5
Other financial investments	17 477.8	10 511.9	22 685.0
Total sources	208 691.3	271 947.5	288 643.5
1. Internal sources	110 468.3	79 835.9	88 955.2
Profit distributed in shares	49 491.1	26 369.7	20 716.8
Amortizations	50 097.7	44 851.2	40 271.6
Reserves	10 879.5	8 615.0	27 966.8
2. External sources	98 223.0	192 111.6	199 688.3
Inflows of capital	25 426.5	9 129.4	552.5
Short-term credits	8 203.0	120 094.2	118 641.5
Long-term credits	25 170.7	16 929.1	28 264.5
Other external sources	55 828.8	45 958.9	59 229.8

/It is

It is interesting to observe that within the gross investment, fixed investment fell continuously from 42.2 per cent in 1960 to 21 per cent in 1963, while inventory changes increased, reaching in 1963 a value equal to that of fixed investment. As a large proportion of fixed investment naturally consists of imported machinery, an attempt was made to determine whether the variations in this investment corresponded to any extent to those which occurred in import of machinery. It was discovered that the trends were similar, imports of machinery increased in 1962 and fell in 1963 to the minimum for the three years.

Factors such as modifications in the foreign trade legislation may be expected to have affected the formation of fixed investment.

In contrast, financial investment grew, as especially appears from the analysis of its evolution in terms of constant prices which will be given below.

Loans granted by the companies accounted for a considerable part of such investment, decreasing, however, from 51.6 per cent in 1961 to 28 per cent in 1963; their liquidity, on the other hand, showed a large increase, from 1.6 per cent of total uses in 1961 to 5.3 per cent in 1962 and to almost 20 per cent in 1963.

A continuous increase may also be observed in the heading, other financial investments.

Internal sources, after reaching almost 53 per cent of the total in 1961, fell to 30 per cent during the following two years. This is owing to the continual decrease in profits distributed in shares and in amortizations. The latter have always constituted the most important heading in internal sources.

Conversely, external sources have grown in importance as a result of the large increase in short-term credits which, after a decrease in 1961, became the most important heading in the total of sources in the following two years. Capital inflows, meanwhile, were reduced to a negligible proportion by the third year of the period. Other external sources constituted the second most important heading in the total of sources owing to the amounts of profits distributed in cash and not distributed.

/In attempting

In attempting to extend the analysis, enterprise size was proposed as a factor affecting the composition of the sources and uses of their funds. An analysis was then undertaken similar to that already made, but dividing the industrial companies into three groups, according to size (large-scale, medium-scale, small-scale). Each company was then assigned to its group on the basis of a number of factors, such as amount of capital and reserves, amount of sources and uses, amount of assets, etc. (See tables 3, 4 and 5.)

Although it is difficult to discover any conclusive differences between the groups, it can be observed that in the large-scale enterprises financial investment is greater than gross investment, while in the medium- and small-scale groups the reverse is the case.

It can also be observed that, with respect to inventory investment, there was every great increase in the large-scale group, a smaller increase in the medium-scale, and a decrease in the small-scale.

All the groups had the same evolution in respect of special funds and banks, which increased in importance, and debtors and outstanding accounts, which decreased.

As regards sources, it is noticeable that in the small-scale enterprises internal sources were greater than external owing to the part played by profits distributed in shares.

Finally, it appears that short-term credits increased greatly in the large-scale group, increased less in the medium-scale group and decreased in the small-scale group. These facts tend to show that the smaller enterprises of the industrial sector depend to a very considerable extent on their own resources for making investments, while the larger have opportunities of using external sources.

(b) Certain points developed

The evolution of the sources of the enterprises will be examined separately; then, after analysing the evolution of uses, the different investments will be related to their financing.

In some cases, in spite of the limitations which this involves, figures at 1963 constant prices will be used, adjusted according to the level of implicit prices.

/Table 3

Table 3

URUGUAY: DISTRIBUTION OF SOURCES AND USES OF FUNDS
FOR 14 LARGE-SCALE INDUSTRIAL STOCK COMPANIES
AT CURRENT PRICES

(Percentages)

	1961	1962	1963
Total uses	100.0	100.0	100.0
1. Gross investment	39.5	50.0	34.2
Fixed investment	53.7	27.9	14.4
Inventory changes	-14.2	22.1	19.8
2. Financial investment	60.5	50.0	65.8
Special funds and banks	4.6	6.4	23.8
Debtors and outstanding accounts	69.1	35.0	32.9
Advance payments and deferred charges	2.8	2.6	1.8
Other uses	-16.0	6.0	7.3
Total sources	100.0	100.0	100.0
1. Internal sources	72.5	28.4	28.3
Profits distributed in shares	42.9	8.7	5.5
Amortizations	36.8	14.9	12.1
Reserves	-7.2	4.8	10.7
2. External sources	27.5	71.6	71.7
Inflows of capital	12.5	2.1	-0.2
Short-term credits	-39.9	52.8	45.8
Long-term credits	13.0	-1.1	6.4
Other external sources	41.9	17.8	19.7

/Table 4

Table 4

URUGUAY: DISTRIBUTION OF SOURCES AND USES OF FUNDS FOR 18 MEDIUM-SCALE INDUSTRIAL STOCK COMPANIES, AT CURRENT PRICES

(Percentages)

	1961	1962	1963
Total uses	100.0	100.0	100.0
1. Gross investment	61.6	69.0	67.6
Fixed investment	40.9	49.8	39.0
Inventory changes	20.7	19.2	28.6
2. Financial investment	38.4	31.0	32.4
Special funds and banks	0.6	3.3	8.5
Debtors and outstanding accounts	36.2	27.3	12.6
Advance payments and deferred charges	4.8	2.2	2.4
Other uses	-3.2	-1.8	8.9
Total sources	100.0	100.0	100.0
1. Internal sources	32.9	25.4	28.3
Profits distributed in shares	6.8	9.8	7.9
Amortizations	13.5	20.2	17.0
Reserves	12.6	-4.6	3.4
2. External sources	67.1	74.6	71.7
Inflows of capital	13.4	3.5	0.2
Short-term credits	32.8	34.2	39.3
Long-term credits	10.7	25.6	20.7
Other external sources	10.2	11.3	11.5

Source: CIDE

/Table 5

Table 5

URUGUAY: DISTRIBUTION OF SOURCES AND USES OF FUNDS FOR 21 SMALL-SCALE INDUSTRIAL STOCK COMPANIES, AT CURRENT PRICES

(Percentages)

	1961	1962	1963
Total uses	100.0	100.0	100.0
1. Gross investment	52.5	70.9	39.0
Fixed investment	13.0	47.5	33.5
Inventory changes	39.5	23.4	5.5
2. Financial investment	47.5	29.1	61.0
Special funds and banks	-2.8	2.8	13.9
Debtors and outstanding accounts	47.7	24.2	27.1
Advance payments and deferred charges	4.6	1.5	9.0
Other uses	-2.0	0.6	11.0
Total sources	100.0	100.0	100.0
1. Internal sources	56.8	46.3	71.4
Profits distributed in shares	19.2	16.8	25.2
Amortizations	18.6	19.8	24.5
Reserves	19.0	9.7	21.7
2. External sources	43.2	53.7	28.6
Inflows of capital	7.4	12.4	5.2
Short-term credits	-10.5	3.6	-8.9
Long-term credits	13.4	13.7	9.0
Other external sources	32.9	24.0	23.3

Source: CIDE

/(i) Sources.

(i) Sources. Tables 1 and 2 above show that there was a downward trend in profits distributed in shares during the period; by 1963 they had fallen to 40 per cent of the figure for 1961.

The amounts of the gross profits allocated for amortizations and reserves have depended to a great extent on the personal initiative of the executives of each enterprise. These amounts vary considerably from one enterprise to another; it cannot help seeming anomalous that when they may be very large in one, they are almost negligible in others.

In external sources there has been a decrease in inflows of capital, which also appears when the figures are expressed at current prices.

This was confirmed by a study made in the stock exchange, which showed that sales of industrial shares are decreasing relative to the total of transactions (from 15 per cent in 1960 to 5 per cent in 1963). Parallel with this there has been an enormous decrease in quotations of these shares.

Short-term credits increased greatly, but the overall increase depended almost entirely on their evolution in the group of large-scale enterprises, as there were no corresponding increases in the other two groups.

Long-term credits have remained more or less stable, with the biggest fall in their share in 1962.

The other external sources heading depends almost entirely on net profits and has varied according to them.

The share of fiscal creditors in sources could only be ascertained in 26 of the 53 enterprises of the sample. (See table 6.)

The continuous growth of the unpaid fiscal charges heading (at current prices, 15.6, 24.8 and 27.2 million pesos for 1961, 1962 and 1963) has made them one of the major sources, with a higher average percentage over the whole period than short- and long-term credits together and with the highest individual percentage in 1962.

It is not unreasonable to conclude that with regard to the sample as a whole a large proportion of short-term credits - which were seen to be the largest source of funds - consisted of unpaid fiscal charges.

/Table 6

Table 6

URUGUAY: DISTRIBUTION OF SOURCES AND USES OF FUNDS FOR 26 INDUSTRIAL STOCK COMPANIES WITH UNPAID FISCAL CHARGES, AT CURRENT PRICES

(Percentages)

	1961	1962	1963
Total uses	100.0	100.0	100.0
1. Gross investment	57.9	68.7	44.7
Fixed investment	47.3	38.7	25.2
Inventary charges	10.6	30.0	19.7
2. Financial investment	42.1	31.3	55.1
Special funds and banks	2.0	0.4	13.9
Debtors and outstanding accounts	42.2	26.5	26.1
Advance payments and deferred charges	6.1	1.8	2.4
Others financial investments	-8.2	2.6	12.7
Total sources	100.0	100.0	100.0
1. Internal sources	43.9	37.2	32.5
Profits distributes in shares	26.1	14.7	11.0
Amortizations	25.5	19.7	15.6
Reserves	-7.7	2.8	5.9
2. External sources	56.1	62.8	67.5
Inflows of capital	16.2	3.2	0.3
Short term credits	-24.4	12.6	27.3
Long term credits	17.8	6.1	2.7
Unpaid fiscal charges	18.8	23.6	18.4
Other external sources	27.7	17.3	18.8

Source: CIDE.

/(ii) Uses

(ii) Uses of funds and their financing. It is considered that funds deriving from internal sources, plus inflows of capital and long-term credits should, in theory, be entirely used for making fixed investments.

Table 7 shows that an average during the period only 63 per cent of the estimated available sources of these types were used for this purpose. It is interesting to notice that in 1962, when these sources reached a minimum and fixed investment a maximum, the percentage was almost 89 per cent.

The columns to the right give the inventory changes, the amount of sources available after financing fixed invetment and the relation between them. There were very considerable changes during the period.

Table 7

URUGUAY: RELATION BETWEEN THE GROSS INVESTMENT AND ITS COMPONENTS, WITH THEIR POSSIBLE SOURCES OF FINANCING, IN THE SAMPLE AS A WHOLE

(Thousands of pesos of December 1963)

Year	Internal sources + long-term credit + inflows of capital (1)	Fixed investment (2)	2/1 (3)	Inventory changes (4)	1-2 (5)	5/4 (6)	Gross investment (7)	1/7 (8)
1961	161 065.5	88 073.7	54.7	18 460.9	72 503.4	395.4	106 534.6	151.2
1962	105 894.4	94 042.5	88.8	58 647.3	11 751.0	20.2	152 689.8	69.3
1963	117 772.2	60 697.7	51.5	60 542.1	57 074.5	94.3	121 239.8	97.1

/The percentage

The percentage distribution of the possible sources of financing for fixed investment for the period 1961-1963 was as follows (on the total of 385 million pesos given by table 7 and at prices of December 1962):

Profits distributed in shares	25.1
Amortizations	35.1
Reserves	12.3
Inflows	9.2
Long-term credits	18.3

Financial investment has continuously increased, in spite of a constant decrease in its most important leading, debtors and outstanding accounts. This latter was counteracted by growth in the headings, special funds and banks and other financial investments. (See table 8.)

It is assumed that financial investment was financed by short-term credits and other external sources, which an average amounted to 98.9 per cent of their value for the period as a whole.

Table 8

URUGUAY: RELATION BETWEEN FINANCIAL INVESTMENT AND ITS COMPONENTS, WITH THEIR POSSIBLE SOURCES OF FINANCING

(In thousands of pesos of December 1963)

Year	Financial investments (1)	Short-term credits and other external sources (2)	2/1 (3)	Financial investments + inventory changes (4)	2/4 (5)
1961	102 156.7	47 625.8	46.6	120 617.6	39.5
1962	119 257.7	166 053.1	139.2	177 905.0	93.3
1963	167 403.7	170 871.3	102.1	227 945.8	75.0

/However, only

However, only 73 per cent of financial investments and inventory changes taken together were financed from these sources, which means that 27 per cent were financed from sources which in theory could have been used for fixed investment.

2. Analysis of the profits of the industrial enterprises

(a) Relative size of the profits

Table 9 gives the percentage dividend on capital plus reserves obtained by the industrial enterprises in the period 1955-1963.

Table 9

URUGUAY: PERCENTAGE PROFITS ON CAPITAL AND RESERVES BY SIZE OF THE INDUSTRIAL ENTERPRISES

Years	Large-scale enterprises	Medium-scale enterprises	Small-scale enterprises
1955	11.6	11.9	13.8
1956	12.0	12.7	13.7
1957	13.1	12.6	14.6
1958	16.2	16.7	18.1
1959	16.9	18.2	18.7
1960	12.7	14.2	18.2
1961	10.9	9.0	18.3
1962	8.2	4.8	13.3
1963	11.9	7.3	13.8

Source: CIDE.

A study on the formation of savings which proposes to analyse the situation respecting undistributed profits should obviously begin by examining profits themselves, that is, the overall volume of gains.

Internal sources will hardly be able to play a part of any importance in Uruguay if the total amount of profits is small.

/The problem

The problem of internal sources is increased by the constant deflation which deprives the apparent profits which it has been intended to determine of much of their real significance.

There are at least two obvious factors which may distort the apparent percentage of profits: inadequate calculation of fixed asset depreciation and undervaluation of stock of capital.

Table 10 is intended to give an overall idea of the effects of this latter. Though the figures are far from being exact, this does not vitiate the general conclusion which it is desired to reach the enterprises have declared amounts of profits that are largely due to the inflationary process, and to the extent to which these have been distributed part of their own capital has been included in the distribution.

Column 1 gives the inventory amounts according to the books. Column 3 gives the figures of column 1 deflated according to the general index of implicit prices.

Column 4 shows the increments of column 3 which, when multiplied by the price index, give the inventory changes at adjusted current prices. By comparing this latter with column 6 (inventory changes according to the books) we obtain the difference between the real inventory changes and what they were believed to be (column 7). Comparison of real profits (column 9) with distributed profits (column 10) shows that the enterprises have not only overestimated their profits throughout, except in 1962, have distributed part of their capital.

(b) <u>The co-efficient of profit distribution</u>

The savings of the enterprises are formed of depreciation of equipment and installations plus part of their net profits after tax deductions.

Several factors affect the profit distribution trend, all of which must be taken into account if it is intended to introduce measures for encouraging this method of saving. The fundamental factor is, however, the propensity to distribute profits, which is related to the commitments of the enterprises towards their shareholders. When the amount of profits rises above this percentage it becomes possible to withhold and reinvest some part of them.

/Table 10

Table 10

URUGUAY: UNDERVALUATION OF STOCK OF CAPITAL IN INDUSTRIAL ENTERPRISES

(In thousands of 1963 pesos)

	Inventory acc/books (1)	Index implicit price (2)	Inventory at constant prices (3)	Inventory changes: Const. pr. (4)	Inventory changes: Current pr. (5)	Inventory changes: Acc/books (6)	6-5 (7)	Profits acc/books (8)	8-7 (9)	Profit distributed (10)
1960	569 754.4	100.0	569 754.4	...	...	...	...	...	...	...
1961	583 452.4	113.7	513 150.7	-56 603.7	-64 358.4	13 698.0	78 056.4	81 993.5	3 937.1	37 488.4
1962	631 308.6	117.4	537 741.6	24 590.9	28 869.7	47 856.2	18 986.5	62 666.5	43 680.0	38 405.0
1963	691 850.7	176.5	391 983.4	-145 758.2	-257 263.2	60 542.1	317 805.3	91 460.6	-226 344.7	52 985.8

Source: CIDE

/This is

This is confirmed in Uruguay's case in which it can be observed that on the whole any increase in the dividend is matched by a corresponding decrease in the percentage of profits distributed, and when, as has been the case since 1959, the dividend falls, this percentage increases. (See table 11.)

Table 11

URUGUAY: RELATION BETWEEN THE DIVIDEND AND THE PROFITS DISTRIBUTED BY THE INDUSTRIAL ENTERPRISES

(Percentages)

Years	Dividend	Distributed profits	Undistributed profits
1955	12.1	67.4	32.6
1956	12.5	59.5	40.5
1957	13.2	59.4	40.6
1958	16.7	49.0	51.0
1959	17.6	40.0	60.0
1960	14.1	49.6	50.4
1961	11.2	44.4	55.6
1962	7.9	46.6	53.4
1963	11.1	55.5	44.5

Source: CIDE.

With regard to their amounts, on the other hand, the distributed profits tend continually to increase, while the undistributed fluctuate. In this case it seems that the amount of distributed profits is the variable which should be first considered and that undistributed profits should be determined in the light of this.

/Table 12

Table 12

URUGUAY: PERCENTAGES OF PROFITS ON CAPITAL AND RESERVES BY BRANCHES OF INDUSTRY

Branch of industry	1961	1962	1963
20. Food products	15.7	15.3	21.3
21. Beverages	13.7	17.1	13.7
23. Textiles	14.7	loss	1.2
27. Paper	7.9	11.7	15.7
28. Printing, publishing and allied industries	12.9	8.3	9.1
30. Rubber products	loss	16.0	28.3
31. Chemicals	10.5	8.9	9.9
33. Non-metallic minerals	23.1	18.0	21.0
34. Primary metal-transforming industries	11.0	4.8	5.7
35. Secondary metal-transforming industries	loss	loss	loss
36. Manufacture of machinery	13.8	11.9	12.6
37. Electrical articles	10.5	10.6	loss

/3. Concluding

3. Concluding remarks

(a) Financing sources and policy

The degree of state participation in the economic process and the rate of growth which it is desired to achieve are determining factors in the form of financing. Financing policy itself should be designed in accordance with this desired growth rate, which is known to depend in large degree on the investment rate and, consequently, on savings.

Financing policy must, then, take into account:

(i) That the country is embarking on a development plan which envisages a relatively high growth rate;

(ii) That the country possesses a mixed economy, in which a large proportion of productive activities belong to the private sector.

(b) Internal sources

The savings generated in the private sector must be increased if the country is to achieve a high investment rate. Family savings, whether derived from wages or capital, tend to be spent on consumption, and a further large proportion of savings must be used for investment in housing.

The increase in savings will therefore either have to occur in the savings of the enterprises or will not occur at all. The financing problem in Uruguay should, then, be posed in terms of the very low level of self-financing by the enterprises.

As long as internal financing remains at or near the present level the supply of capital will continue to be inadequate and enterprises will continue to have to make excessive use of credit.

Clearly, the growth of internal financing implies an increase of profits, as it does not appear that it could be generated by reducing the cash dividends distributed.

(c) External sources

(i) Credit. In the period under consideration long-term credit and internal sources were together sufficient to finance fixed investment, but it is unlikely that this would be the case if investment expectations were increased.

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Medium- and long-term credit should therefore be reinforced by official credit or by creating specialized banks concentrating on selected industries and on enterprises having less access to the traditional sources of credit;

(ii) Inflows of capital. The study revealed that there were almost no new inflows of capital during the period.

If saving is to be entering and returning to the stock exchange on any large scale two conditions must be fulfilled: first, that the greater attractions of others, more speculative and more profitable types of investment are diminished, and, second, that the present situation with regard to the profits to be expected from this type of investment is improved.