

UNITED NATIONS  
ECONOMIC  
AND  
SOCIAL COUNCIL



GENERAL

E/CN.12/218/Add.1  
20 April 1951ENGLISH  
ORIGINAL : SPANISH

ECONOMIC COMMISSION FOR LATIN AMERICA

Fourth Session  
Mexico, D.F.  
28 May 1951

RECENT DEVELOPMENT AND PROBLEMS  
OF  
ARGENTINE INDUSTRY

## Table of Contents

	Page
INTRODUCTION .....	3
Characteristics of Argentine industry .....	6
CHAPTER I. STRUCTURE OF INDUSTRY -- EVOLUTION AND PRESENT POSITION .....	10
The structure of industry .....	10
Recent development of industry as a whole and according to principal branches and groups .....	19
General observations .....	19
The development of industry as a whole .....	22
Analysis of the development of the different groups and branches of industry .....	28
The equipment of industry .....	69
CHAPTER II. THE FINANCIAL STRUCTURE OF INDUSTRY .....	74
Introduction .....	74
Evolution of assets .....	77
Structure of liabilities .....	86
Liquidity indices .....	88
Depreciation and reserves .....	90
Dividends .....	91

/CHAPTER III

	Page
CHAPTER III. CONDITION, PRESENT PROBLEMS AND FUTURE PROSPECTS OF ARGENTINE INDUSTRY	94
General position of industry and common problems - - - - -	94
Analysis of the different factors - - - - -	96
Economic policy - - - - -	106
Position and typical problems of some of the major industries - - - - -	108
The textile industry - - - - -	108
The metallurgical industry - - - - -	111
CHAPTER IV. INDUSTRY AND THE MARKET	126
Introduction - - - - -	126
Foreign Competition - - - - -	130
Exports of industrial goods - - - - -	136
CHAPTER V. ARGENTINE INDUSTRIAL POLICY	140
Types of measures - - - - -	140
General survey - - - - -	141
Planning - - - - -	144
Measures related to various economic aspects - - - - -	146
Freight rates - - - - -	146
Utilization of energy - - - - -	147
Control of prices and supplies - - - - -	147
Measures to facilitate the establishment of foreign industries --	151
Direct State action - - - - -	151

## INTRODUCTION

The transformation of Argentina's economy from a structure giving preference to exports of agricultural and stock-breeding products to one more fully integrated and less dependent on foreign markets, began in the thirties. Immediate advantage was taken of the dislocation of trade and of the world economy caused by the world economic crisis, under the influence of the transformations in ideas and ways of living which had occurred since the First World War.

In view of the stagnation of traditional agricultural activities, which had already covered all the available land on the fertile humid pampas with their extensive methods of cultivation, and of the stagnation of world demand, it was natural that industrial activity should begin to take shape, since trade, finance and bureaucracy were near saturation point, living at the expense of the productivity of the fertile Argentine countryside.

Little had remained of the industry created during the First World War. Many businessmen were discouraged, but the germ of considerable restlessness existed. During the twenties some enterprises flourished and some foreign businessmen even began to install branches in Argentina.

The first fiscal and currency measures adopted in 1931 and the following years, to ensure equilibrium in the balance of payments and in the government budget, were important incentives to definite industrial development. The increase in customs duties in 1931, the devaluation of the peso and the system of exchange control, all helped to convert <sup>into reality</sup> many hopes and plans of Argentine businessmen and capitalists. Foreign capital and skill at this stage came to the help of these first comprehensive efforts and effectively contributed to their consolidation.

The end of the crisis, when prices of agricultural products on the world market recovered as a result of the greater demand, made it possible to obtain many goods of traditional brands and qualities from abroad, sometimes at lower prices than those of the incipient domestic industry. By this time an industrial crisis would have constituted a serious social and political threat. Industrial employment was rising at the rate of over 20,000 workers a year (4 to 5 per cent), absorbing a large part of the regular growth of the population. There were at that time a large number of young people of working age, the product of the high

/birth rate

birth rate of the years 1910 to 1925. Immigration had started again and increased the supply of labour.

Measures of exchange control, at first taken for purely monetary reasons, were being directed towards another aim, the protection of domestic activities.

While economic ideas were changing in view of world and Argentine conditions, an industrial policy was outlined which began to acquire shape, development, clarity and conviction as time went on. Lack of foreign competition during the Second World War and strong domestic demand provided a spur to industrial activity, and consolidated the concept of industrialization for the purpose of raising the standard of living of the population and using national potentialities to greater advantage.

The number of industrial establishments was already multiplying rapidly, and employment was increasing annually at a rate of 50,000 to 70,000 workers (between 6 and 10 per cent).

During those years various measures were introduced, some of them very important, designed to consolidate and expand industrial activity. These lessened the fears aroused at the end of the war of possible disastrous competition. There can be no doubt that this industrial development had many weak points. The effort had been partly carried out with men and capital from other fields, unused to the ups and downs of industrial development and attracted by the prospect of easy profits. It is true that the basic weakness of this avalanche of new industrialists was offset by large expansions by the already experienced factories. Nevertheless, in both cases, the new workers and even technicians were improvised as well as organization, equipment and machinery.

Meanwhile the pre-war installations were wearing out since they were being used almost to the full, and there were difficulties in replacing and repairing them.

The scope of this industrial effort is shown by the fact that the absorption of new workers was well in excess of the regular growth of the gainfully employed Argentine population. Even with an annual increase of approximately 45,000 persons in the age group from 15 to 55 years of age, industrial expansion implied drawing labour from other activities: the countryside, of course, and different services, particularly domestic service.

/It should

It should also be mentioned that many men and much capital that had entered the country in some cases surreptitiously, fleeing from the European conflagration, contributed to this urge for the creation of new industries. The rapidity and confusion of this expansion was naturally to some extent self-defeating. The abundance of employment meant greater aggregate incomes for working families, rather than a rise in nominal wages, which was gradual in those days (at the rate of less than 5 per cent a year). The number of workers in each family increased, or they used their time to greater advantage. As the cost of living followed the rate of nominal wages, that is, as the real wages remained constant until 1946, these larger family incomes permitted of a substantial increase in the consumption of this working sector. Meanwhile the standard of living of the middle classes also remained constant, since the greater quantity of employment in each family offset the decline in the purchasing power of salaries.

There came a time in 1946 when the possibilities of expanding productive capacity as well as supplies of fresh capital and labour were exhausted. The increased demand then began to affect prices, and certain influences, mainly psychological, began to be noted as regards the future of Argentine industry.

A new stage then began in this process of structural change. This stage will be analysed in detail in the next chapter. The purpose of this report is to show the influence of this process on the economic and financial structure of domestic industry, and to appreciate the repercussions of this new situation on foreign trade and the balance of payments.

Unfortunately this aim cannot be fully carried out, since many aspects can only be considered superficially, for lack of adequate data. The opportune appearance of the report of the Official Statistical Service of the Ministry of Technical Affairs on "Argentine industrial activity from 1937 to 1949" has filled a gap as regards employment, wages, man-hours and quantum of industrial production. The conclusions in this report are based on these figures and on those which it has been possible to collect from scattered sources. It would have been very useful to have the detailed results of the 1946 census in the industrial branch (the last industrial statistics correspond to 1943), since they would have provided complete data.

### Characteristics of Argentine industry

In general, Argentine industry may be described as being in the category of "light" industry, since smelting and the primary manufacture of iron and other metals, as well as the heavy chemical industry, are still only in the initial stages.

The undeveloped state of heavy industry is explained by the policy of development oriented towards the outside world which predominated until 1930, by ignorance of domestic mining possibilities, and by the shortage of industrial capacity.

For this reason too, the degree of mechanization in the manufacturing industry is very low in comparison with that of typical industrial countries. Unfortunately, it is not possible to give recent figures of investments in machinery per worker nor of the quantity of h. p. installed. According to the industrial statistics for 1943, which are relatively complete, installed h.p. amounted to 1,500,000, representing 2.1 h.p. for each of the 720,000 workers engaged in industry.

This figure is interesting to compare with the 6.4 h.p. per worker in Canada, 4.8 in Sweden, 4.6 in Finland, 3.5 in the United States, 3.3 in Australia, 3.1 in New Zealand, 2.1 in the Union of South Africa and 2.0 in Brazil, according to the latest information published by the United Nations.

The possibilities of purchasing new equipment have not improved and mechanization is indispensable in a country with such a low density of population (5.7 inhabitants per square kilometre).

Indices show that output per worker employed has dropped by 12 per cent since 1939. Between 1939 and 1943 there was a reduction of almost 20 per cent, principally owing to the complete lack of replacements during the period and the difficulties in purchasing raw materials. Since then, mainly owing to the heavy imports of machinery and the return to normal conditions in the market for raw materials between 1946 and 1948, there has been an improvement which, however, has not been sufficient to offset the former decline.

It should be remembered that before 1939 the increase in worker output in industrial production was about 1 per cent a year, whereas the increases in the United States were 2.8 per cent and in England 1.5 per cent.

/Another feature

Another feature of Argentine industry is its dependence on abroad for supplies of certain very important raw materials, as well as the lack of consolidation in the engineering industry. Prior to 1939, 29 per cent of raw materials were imported, but in 1941 the proportion dropped to 25 per cent, and in 1943 to 16 per cent. Later figures are not available, but except during the 1946-48 period, the position has continued to be critical, in spite of a marked preference in the granting of foreign exchange for imports of raw materials and semi-manufactured products for industry.

Fuel and power constitute a factor which as a whole has little effect on production costs (2.4 per cent in 1935 and 4.5 per cent in 1943), but the need to import over half the petroleum and all the coal has caused standstills and increases in costs, which are all the more serious as energy becomes more important for production processes. The undeveloped state of hydro-electric resources, the location of possible sources of hydraulic power so far from the present industrial centres (except Mendoza and Cordoba), and the difficulties of importation since 1939 explain many of the ups and downs of Argentine industry, as will be seen later on.

The lack of technical knowledge and of an industrial atmosphere is easily understandable in view of the historical background of the Argentine economy. Until well into the thirties, industry was mainly organized by foreigners, who introduced somewhat routine and often backward technical methods from their own countries. This explains the low technical standard of many installations. A School of Industrial Engineering was not created until 1918, and it did not attract many students until the mid-forties. The same applies to other technical training programmes organized in the different universities: mechanical engineering, doctorate in chemistry, chemical engineering, and the various industrial specialities, such as petroleum, textiles, aeronautics and geology. The industrial schools for the training of foremen and the technical institutes, although well attended, had not sufficient scope and did not arouse interest until recently. Finally, schools of apprenticeship and professional guidance were only organized from 1944 onwards under the auspices of the Ministry of Labour. These were designed to provide professional training for the workers, who up to that time had been completely ignored in the enthusiasm for education which had always distinguished Argentine ruling circles. In 1950, 35,000 students were enrolled in these schools.

The Argentine industrial entrepreneur was either an emancipated worker, with low technical capacity and little capital, or else a company promoter anxious for immediate profits. This aspiration is perfectly understandable in a country accustomed to the rapid enrichment and high profits obtainable in business. This tendency was encouraged by the absence of a definite industrial policy providing safeguards for the future. Even today, after several years of intensive measures of industrial development, there are disconcerting fluctuations, which make it possible to secure large immediate profits as an insurance against an uncertain future. It should be remembered that Argentine industry developed by sudden leaps and bounds, taking advantage of absence of competition due to various international events and leaving a profound impression in the minds of entrepreneurs. For all these reasons, it will take many years to form the atmosphere and mentality required by the country in the maturity of its industrial development as a basis for a firm industrial policy.

The geographical location of Argentine industry is grafted on to the economic structure of a country oriented towards the outside world owing to the momentum of its exports. The top-heaviness of an export economy has been aggravated by industrialization carried out on the basis of a concentrated consumption and labour market. It has also been influenced by an assured fuel supply, railway freight tariffs favouring the transport of raw materials to the ports, and the structure of railways and highway communications radiating practically from a single centre and closely dependent on political and cultural centralization. In 1943 83 per cent of enterprises, 86 per cent of employment and 85 per cent of the net value corresponded to industry in the Pampas region, almost all concentrated at Buenos Aires and its surroundings. These proportions will drop gradually in subsequent years.

Some 28 per cent of the country's population is concentrated at Buenos Aires and in the neighbourhood, where five million people with the greatest economic capacity in the country live. Perhaps almost 40 per cent of the spending power resides in this nucleus. The rest of the population (12 millions) extends over 3 million square kilometres, providing a diluted market with bad communications.

/Since agricultural



Since agricultural expansion has been arrested for over 20 years, the regular growth of the population (250,000 persons) and the balance of migration, which was small during most of the period but relatively abundant in the last three years (150,000 persons a year) is forced to turn towards urban industries. The annual availability of labour has been estimated at 100,000 persons for 1950, of whom 50,000 are the result of regular growth, and 50,000 of migration <sup>1/</sup>.

In the next few years this figure will rise slowly as far as internal growth is concerned, reaching approximately 55,000 in 1955, since although the new generations are affected by the big decline in the birth rate after 1930, a smaller number of people will leave the active population because of old age or death, as a result of the reduction in immigration since 1914.

In the future, Argentine industry will have at its disposal a moderate supply of labour and a demand which cannot be met from abroad, if agricultural production continues stationary. It will therefore be necessary to use foreign exchange more and more selectively in favour of essential goods, as has been done with greater or lesser strictness for several years. Such goods would include fuels, machinery, spares, raw materials and semi-manufactured products for industry, and transport materials.

/CHAPTER I

---

<sup>1/</sup> "Sugerencias para una política argentina de ocupación integral." Emilio Llorens, Revista de Economía Argentina, No. 383, May 1950.

## CHAPTER I ECONOMIC STRUCTURE OF INDUSTRY - EVOLUTION AND PRESENT POSITION

### The structure of industry

In an earlier document prepared by the United Nations Economic Commission for Latin America<sup>1/</sup> the evolution of Argentina's industrial economy in relation to other sectors, and the consequent structural changes in the country's economy have already been analysed. No work has been carried out or published which throws any new light on the picture already presented, particularly as regards the share of each branch of production and services in the national income, which provides the most eloquent index for measuring this share.

Total employment in industry, including all its branches, from crafts to the great enterprise, and covering construction, has been estimated for the beginning of 1950 at 1,800,000 persons (proprietors, executives, employees and workers), a figure representing approximately 26 per cent of the total 6,800,000 persons employed.<sup>2/</sup> Publication of the 1947 Census, in its chapter on population according to occupations, would make it possible to readjust this estimate which is based on incomplete data.

Disregarding the construction industry and crafts, which are not now included in industrial statistics, and which also have very special features as regards evolution, economic impact, technical progress, social problems etc., it may be concluded that by early 1950, there were 1,400,000 persons in Argentina employed by industry proper. Of these 1,070,000 were workers, 145,000 employees (including those employed in the administrative offices of the great industrial enterprises), 95,000 proprietors or executives, 30,000 members of the families of proprietors and about 70,000 home workers, principally working for the garment industry (Table 1).

/Table 1

---

1/ Economic Survey of Latin America, 1949, E/CN.12/164. Chap. VII. Economic development of Argentina.

2/ Argentina Social y Económica, Carlos Moyano Llerena, Roberto Marcenaro and Emilio Llorens, Buenos Aires 1950.

**Table 1**      **Argentina:**      **Personnel employed by industry<sup>a/</sup>**  
(thousands of persons)

<u>Detail</u>	<u>1937</u>	<u>1939</u>	<u>1941</u>	<u>1943</u>	<u>1949<sup>b/</sup></u>
Proprietors or executives	54	57	62	73	95
Employees	72	78	92	110	145
Workers	530	574	680	819	1,070
Members of the families of proprietors	20	22	22	25	30
Home workers	<u>40</u>	<u>44</u>	<u>47</u>	<u>55</u>	<u>70</u>
Totals	<u>716</u>	<u>775</u>	<u>903</u>	<u>1,027</u>	<u>1,410</u>

Source: Industrial statistics

- a/ Establishments included in industrial statistics. Excludes construction and crafts. Includes administrative offices.
- b/ Estimated by applying the index of labour employment (30.4 per cent more than in 1943).

**Table 2**      **Argentina:**      **Workers employed in industry in relation to the  
population**

<u>On 1 January</u>	<u>Total population</u>	<u>Total employed<sup>a/</sup> population</u>	<u>Absolute</u>	<u>Industrial employment<sup>b/</sup></u>	
				<u>As proportion of the total</u>	<u>As proportion of the total employed</u>
	(in thousands of persons)			percentages	
1938	14,100	5,560	716	5.1	12.8
1941	15,700	..	840	5.4	..
1944	15,300	6,000	1,027	6.7	17.1
1947	16,000	..	1,270 <sup>c/</sup>	7.9	..
1950	17,100	6,800 <sup>c/</sup>	1,410 <sup>c/</sup>	8.3	20.7

Source: Argentina Social y Economica, by Carlos Moyano Llerena, Roberto Marcenaro and Emilio Llorens, Buenos Aires 1950.

- a/ Approximate estimates allowing for estimates by various authors.
- b/ In establishments covered by the census: excludes construction and crafts and includes administrative offices.
- c/ Estimates based on the index of labour employment.

Before the war, the number of persons employed used to be exactly half the 1949 figure. This means that in a dozen years industry has doubled its personnel.

It is not possible to state what influence has been exerted by the installation of new and the expansion of existing factories, since there are no particulars of the date of installation or of the number of new industries.

However, the expansion mentioned implies a great structural change in relation to other sectors of economic activity. The number of persons employed in industry (excluding the construction industry and crafts) represented 5.1 per cent of the total population in 1938, and approximately 12.8 per cent of the total active population. Both these percentages have risen substantially, since the rate of growth in industrial employment was higher than that of the total population and of the active population, with the result that by 1950 the two proportions were approximately 8.3 and 20.7 per cent (see Table 2).

From the incomplete figures known it can be deduced that agricultural employment has declined since then, while increases have occurred in commercial employment and transport, and in many other service occupations, with the possible exception of domestic employment.

The average annual natural growth of the Argentine population has been 1.6 per cent during the period; besides, immigration during the last three years added about 1 per cent a year. The active population (15 to 59 years) has probably been increasing by some 2.5 per cent a year. Meanwhile, industrial employment has been expanding by 5.4 per cent annually. Since industry directly employs one fifth of the active population, changes in the structure of industry are obviously of the greatest importance in general economic activity, in political and social matters and in international trade relations.

While there has been a variation in size, there has <sup>also</sup> been a change in the economic structure. Since there is no direct information of the value of production, or of the value added by industry to raw materials, for each of the branches or groups of industry, nor of the motive power and fuels consumed, two indirect indices will be used: workers employed and wages paid.

Both indices show that the proportionate importance of the different groups has varied in relation to the whole, and the same is true of the branches of industry within each group.

Manufacturing industry<sup>has</sup> pushed ahead even further in its already almost complete predominance, as against production of electricity and gas and the extractive industries, which together account for only 4 per cent of the total workers employed (5 per cent before the war). Even more remarkable, as showing an interesting and necessary trend for Argentine economy, is the growing part played by the industry producing durable goods since 1943. In that year it accounted for 30.8 per cent of all workers employed in industry, and in 1949, 36.6 per cent. Though the statistical classification does not permit a clear-cut division between the two groups and it is not easy to separate capital goods from consumer goods, nevertheless, the relevant figures are most illuminating.<sup>1/</sup>

The heightened predominance of the production of durable goods is the result of the extraordinary expansion which took place in the<sup>electrical</sup> machinery and appliances industry, and in the stone, glass and ceramics industry. Electrical machinery was mostly imported before 1939, but export restrictions imposed by the customary suppliers, and import restrictions imposed by Argentina through exchange control, linked with the increase in domestic consumption, led to the installation and expansion of plants for producing motors, refrigerators, sundry appliances for the home, ventilators, accumulators and batteries and lamps and tubes. The same occurred in the case of radio receivers and spare parts<sup>for</sup> radios.

Proportionate advances also occurred, broadly speaking, in construction materials, except cement and tiles, owing at first to the shortage of fuels and transport, and later to the difficulties in expanding installations. However, there has been a great increase in the production of glass, pressed bricks and ceramic ware.

Among the other groups of durable goods, the production of iron and steel pipes, shipyards and the manufacture of machinery and motors suffered abnormal fluctuations. However, the sheet metal and galvanizing industries, iron and steel smelting, light iron and metal industry, the motor-car, assembly and manufacturing industry and railway workshops are all still experiencing difficulties, mainly through the lack of raw materials, which are largely imported.

/Among the

<sup>1/</sup> La actividad industrial argentina desde 1937 a 1949. Official Statistical Service. Directorate General of the National Statistical Service. Directorate of Technical Services of the State. Ministry of Technical Affairs. September 1950.

Among the industries producing non-durable goods, the industrial group which employed most workers in 1949 was that producing foodstuffs and beverages, although it no longer accounted for 23.1 per cent, as in the average of the years 1937-39, but only 20 per cent. The reduction was mainly due to the slack business and even decline of the meat packing plants, for reasons to be explained below, which employed the same number of workers in 1949 as in 1941. In the non-durable goods group, the flour-milling and flour products industry (bread, noodles, biscuits etc.) expanded less than the general trend, and hence there was a reduction in the proportions; on the other hand, there were proportionate increases in the oil, sugar, beer, mineral waters and fish canning industries.

Among non-durable goods, the textile industry ranks second, accounting for 13.9 per cent of the workers in industrial employment and showing an upward trend, since before the war it accounted for only 12.2 per cent. Taken jointly with the garment industry, it accounted for as much as 19.9 per cent in 1949, that is, as much as foodstuffs (see Table 3).

Some branches of this group made great progress during the decade, encouraged by the absence of imports and by the export possibilities. Although there were difficulties in acquiring machinery, the textile industry now practically satisfies all domestic demand at the present time, except for certain types of high-quality wool and cotton yarns and fabrics. And <sup>in</sup> some branches productive capacity exceeds domestic demand and will in future be in an excellent position to export, since equipment in general is very modern, and methods are skilled. The cotton and woollen spinning and weaving mills have doubled their personnel, while there was a decline in the percentage accounted for by knitted and silk hosiery manufacturing, largely owing to a shortage of fine yarns, which has hampered the development of this branch of industry.

The manufacture of garments and other textiles maintained its position as an employer of labour, except in the case of rope-soled shoes and burlap bags, which suffered from shortages of raw materials and an excessively strict price control which caused manufacturers not to increase production.

The other sections also retained their shares out of the total, except the tobacco industry and printing and publications where the percentages dropped substantially, as can be seen from Table 3, and in the chemical products industry which, by contrast, shows a rise from 3.3 per cent to 4.2 per cent out of the total (Table 3).

Table 3 Argentina: Structure of Industry  
Employment according to groups of industry

Groups of industry	Workers employed annual average				Proportion		
	1937	1939	1943	1949	1937/39	1943	1949
<u>EXTRACTIVE INDUSTRIES</u>	<u>13,094</u>	<u>15,646</u>	<u>23,339</u>	<u>23,255</u>	<u>2.8</u>	<u>3.2</u>	<u>2.4</u>
<u>MANUFACTURING IND.</u>	<u>464,460</u>	<u>506,333</u>	<u>695,285</u>	<u>917,069</u>	<u>94.9</u>	<u>94.9</u>	<u>96.0</u>
Durable goods	162,774	183,208	258,894	348,976	33.9	30.8	36.6
Non-durable goods	301,686	323,125	436,391	568,093	61.0	64.1	59.4
Foodstuffs and beverages	114,152	122,357	163,127	196,011	23.1	22.3	20.5
Tobacco	8,321	8,297	8,777	10,370	1.6	1.2	1.1
Textiles	61,400	63,493	92,876	133,200	12.2	12.7	13.9
Garments	29,932	31,346	38,608	57,449	6.0	5.3	6.0
Timber (1)	36,371	41,123	72,303	77,087	7.6	9.9	8.1
Paper and cardboard	8,321	9,219	13,875	17,413	1.7	1.9	1.8
Printing and publishing	22,681	23,995	25,695	31,487	4.6	3.5	3.3
Chemical products	16,103	17,469	28,068	40,437	3.3	3.8	4.2
Petroleum derivatives	3,196	3,760	4,017	6,261	0.7	0.5	0.7
Rubber	5,296	6,213	4,333	10,535	1.1	0.6	1.1
Leather	18,734	20,886	31,254	39,927	3.9	4.3	4.2
Stone, glass and ceramics (1)	21,611	24,687	36,207	60,387	4.5	4.9	6.3
Metals (excluding machinery) (1)	47,331	52,637	66,102	92,312	9.8	9.0	9.7
Vehicles and machinery (1)	52,786	59,303	75,874	95,589	11.0	10.4	10.0
Electrical machinery, equipment and appliances (1)	4,675	5,458	8,408	23,601	1.0	1.1	2.5
Miscellaneous	13,550	16,090	25,561	25,003	2.8	3.5	2.6
<u>ELECTRICITY AND GAS</u>	<u>11,134</u>	<u>12,331</u>	<u>14,175</u>	<u>15,566</u>	<u>2.3</u>	<u>1.9</u>	<u>1.6</u>
<u>GRAND TOTAL</u>	<u>488,688</u>	<u>534,310</u>	<u>732,799</u>	<u>955,890</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source: La actividad industrial argentina desde 1937 a 1949.

(1) These industries mainly produce durable goods.

/The manufacture

The manufacture of automobile tyres and inner tubes and other rubber goods, has regained its pre-war importance, after suffering heavy reductions during the war through shortage of materials. Among chemical products impressive increases occurred in the manufacture of rayon, dyestuffs and paints, and certain types of medicines, whereas the opposite is true in the case of the manufacture of tanning materials, matches, soap and printer's inks.

If wages are taken as indices of the structural changes, it will be seen that the picture reflected by composition according to wages shows changes similar to those conveyed by the tables constructed according to the number of workers employed, which suggests that wages, in spite of their great fluctuations, must have risen uniformly for all the industrial groups.

But naturally the distribution of workers employed and wages paid cannot convey a true idea of the structure of the different branches of industry, for the degree of mechanization in the different sections changes the whole picture.

In the absence of census data, an attempt has been made to estimate the present position by means of calculations based on the industrial statistics for 1943 and the indices of the quantum of production. Table 4 was prepared by applying the quantum index to the percentage accounted for in 1943 by each group or section of industry out of the total value added; this Table shows the percentage distribution in 1949, in comparison with the 1937 and 1939 percentages which were taken from the corresponding census data.

If the quantum indices of production are applied to the 1943 distribution according to major groups, from 1937 to 1949, the figures in Table 4 are obtained; this Table shows how the figures relating to the volume of production have varied.

This leads to the conclusion that between 1937 and 1943 the proportion of the quantum of the extractive industries increased (from 3.8 to 4.3 per cent), but that since then, principally as a result of absence of demand for certain minerals and the halt in the expansion of petroleum production, the proportion dropped to 2.6 per cent in 1949. Production of electricity also dropped slightly in proportion. Meanwhile the percentage accounted for out of the total by the industries producing durable goods, the share of which in the total volume of production had declined between 1937 and 1945 as a result of the difficulties in importing equipment and materials, rose from 27.7 in 1945 to 33.7 per cent in 1947. Later, owing to new import restrictions, it declined again to 30.8 per cent, remaining at a level higher than before the war.



Table 4      Argentina:      Structure of industry according to the  
proportion of values added

Groups of Industry	1937	1939	1943	1949	(a)
<u>EXTRACTIVE INDUSTRIES</u>	<u>3.8</u>	<u>4.4</u>	<u>4.3</u>	<u>2.6</u>	
<u>MANUFACTURING INDUSTRIES</u>	83.5	83.1	86.4	88.1	
Durable goods	26.6	27.1	27.9	30.8	
Non-durable goods	56.9	56.0	58.5	57.3	
Foodstuffs and beverages	22.6	20.6	19.5	15.3	
Tobacco	1.0	1.4	0.8	0.8	
Textiles	7.7	7.8	11.8	13.3	
Garments	6.4	6.4	4.4	5.3	
Timber	4.8	4.8	6.0	5.9	
Paper and cardboard	1.1	1.1	2.0	1.6	
Printing and publishing	8.0	7.6	5.3	5.5	
Chemical products	3.1	3.3	4.8	4.2	
Petroleum derivatives	1.4	1.7	1.4	1.4	
Rubber	0.8	0.8	0.6	2.4	
Leather	2.9	3.0	3.6	2.7	
Stone, glass and ceramics	3.6	3.5	3.7	3.4	
Metals (excluding machinery)	7.6	7.6	7.7	10.3	
Vehicles and machinery	9.7	10.1	9.2	8.7	
Electrical machinery, equipment and appliances	0.9	1.1	1.2	2.5	
Miscellaneous	1.9	2.3	4.4	4.8	
<u>ELECTRICITY AND GAS</u>	<u>12.7</u>	<u>12.5</u>	<u>9.3</u>	<u>9.3</u>	
TOTAL	100	100	100	100	

Source:      Industrial statistics.

(a) Estimate based on the changes in the index numbers of the quantum applied to the 1943 averages. These values would be exact if the price ratios between the articles in the different groups had remained unchanged.



The group of industries producing non-durable goods kept its proportion stable until 1943 (58 per cent); subsequently, it rose, and in 1949 it fell again to 57 per cent.

Within the branches of industry, it should be noted that declines occurred in the proportions accounted for by petroleum, meat packing plants, canning, dairy products, hosiery, garment manufacture in department stores, and railway workshops; while increases occurred in liquors, dyeing, men's tailoring, processing of rubber, smelting of iron and steel, accumulators and electrical equipment and appliances.

Another method of calculating the value added by industrial production in 1949, according to branches of industry, could have been that of applying to the wages and salaries paid in that year, the proportion accounted for by these in 1943 in relation to the value added for each group. A figure of value added would be obtained, influenced by price variations. Unfortunately, statistics of wages paid are not homogeneous because they only include what the worker receives directly. However, in recent years they have been inflated, for the purposes of the cost of production, by the social charges which the worker does not receive directly but which are paid by the entrepreneur (employer's contribution to the pension fund, severance pay, apprenticeship, university tax etc.) which represent approximately 30 per cent of the amounts actually paid to the workers. Therefore the proportions of wages to value added, which for industries as a whole remain at about 58 per cent throughout the years until 1943, no longer represent this figure with certainty. Had it been maintained, the value added by industry would have been approximately 12,700 million in 1949.

Recent development of industry as a whole and according to principal branches and groups

General observations

The most intensive development of Argentine industry took place between 1937 and 1949, while at the same time/<sup>the</sup> greatest and most rapid change in the economic structure took place. The Official Statistical Service has published indices of industrial activity (employment, wages, man-hours and quantum) relating to this period, permitting a detailed analysis and statistical evaluation of many of the problems and features of this process.

/In the

In the first place, however, it is necessary to assess the value of these indices, which partly correct those published on previous occasions.

The differences between the new quantum indices, for example, and those published in the 1948 Report of the Banco Central of the Argentine Republic, are so great that an explanation is required. This explanation is implicit in the latest official publication.

The method of compiling the indices follows the international technique and is based on the figures of the periodic census data (1935 - 1937 - 1939 - 1941 - 1943 and 1946) and on annual surveys of a certain number of establishments (2,000 in the most recent period). The indices corresponding to that survey are weighted, for each branch and group of industry, according to the proportionate importance of the value added by these in 1943. As it is very difficult to include new industrial establishments in the surveys, it happens that in a period of intensive expansion, such as that analysed, the periodic census data reflect a situation which is better than is conveyed by the estimates arrived at through the indices derived from the periodic samples.

This is particularly true of the most recent period. The indices published up to 1948 were based on the industrial statistics for 1943. Thus it was estimated, for example, that employment in 1947 was 16.5 per cent greater than in 1943, and the quantum 31.5 per cent higher. Whereas according to the new index, which has been corrected to allow for the facts shown in the 1946 Census, which covered all industrial establishments in the country, these increases, for the year in question, were 30.3 and 31.5 per cent, respectively (Table 6).

/Table 6

**Table 6 Argentina: Indices of the quantum of production, industrial employment and output per worker (excluding construction)**

Years	Quantum		Employment		Output per worker	
	New Series	Old Series	New Series	Old Series	New Series	Old Series
1937	82.1	82.8	66.7	79.4	123	104
1938	...	...	69.8	82.6	...	...
1939	89.5	89.8	72.9	86.2	122	104
1940	...	...	76.7	89.1	...	...
1941	93.8	94.5	83.3	92.6	112	102
1942	...	...	90.4	97.8	...	...
1943	100.0	100.0	100.0	100.0	100	100
1944	112.2	109.0	108.9	103.8	103	105
1945	112.2	105.7	115.1	105.0	97	101
1946	125.3	115.3	123.7	108.6	101	106
1947	143.5	131.5	130.3	116.5	110	113
1948	146.2	134.5	131.7	...	111	...
1949	141.8	...	130.4	...	108	...

Source: Report of the Banco Central of the Argentine Republic, 1948, and La Actividad Industrial de 1937 a 1949.

The quantum index of production was calculated, as stated in the official publication, on the basis of the volume of production of the principal products within each group and branch of industry. The resulting indices were weighted for the purpose of calculating the indices for the branches of industry, according to the gross value of production of these branches in 1943 (since it is not possible to calculate the value added by industry for each article, although this would more accurately reflect the respective importance). The indices for the different branches of industry were weighted, for the purpose of calculating the indices for the groups, according to the net value determined by industrial statistics. The comprehensive index for the whole of industry was estimated in the same way.

/It should

It should be noted, moreover, that in this analysis the construction industry is entirely disregarded, as are certain lesser branches (wine bottling, maritime hunting and fishing, and grain elevators) because this has been the practice followed in official statistics since the 1946 Census.

Although the official report gives the indices on the basis of 1943 = 100, they are presented here with the basis 1937-39 = 100, to make it easier to estimate the industrial transformation which has occurred in comparison with the pre-war period.

#### The development of industry as a whole

Three stages may be observed in the development of industry as a whole during the last dozen years.

In the first stage, which includes the years just before the war and the early war years until 1941, production increased steadily at an average annual rate of 3 per cent a year, and employment at an average rate of 5 per cent. The number of workers employed directly in the industrial establishments covered by the census, rose from 489,000 in 1937 to 611,000 in 1941, at an average rate of 25,000 a year, equivalent to half of the increase in the persons to be employed in all activities. Employees, home workers, executives, and members of the families of proprietors are not included in these figures, nor are small craftsmen. (Table 7).

Different circumstances, including the incipient difficulties as regards equipment, imports of replacements and raw materials, fuel and power and the temporary lack of training of the new personnel transferred from other activities -- all these caused a decline in the output per worker, since employment rose more than the volume of production. In 1941 the output of labour was 91.5 in relation to 1937-39 = 100.

Wages thus remained at the same level. As there was no rise in the cost of living either, wages practically speaking retained the same purchasing value. The 650 millions of pesos paid in wages in 1937 rose to 850 millions in 1941.

Table 7 Argentina: Development of Industry  
1943 = 100

Years	Workers employed	Quantum	Output	Man Hours	Output per hour
1937	66.7	82.1	123.1	...	...
1938	69.8	...	...	...	...
1939	72.9	89.5	122.8	...	...
1940	76.7	...	...	...	...
1941	83.3	93.8	112.6	...	...
1942	90.4	...	...	...	...
1943	100.0	100.0	100.0	100.0	100.0
1944	108.9	112.2	103.0	108.3	103.6
1945	115.1	112.2	97.5	109.1	102.9
1946	123.7	125.3	101.3	114.9	109.1
1947	130.3	143.5	110.1	120.5	119.1
1948	131.7	146.2	111.0	119.0	122.3
1949	130.4	141.8	108.7	116.6	121.6

Source: La Actividad Industrial Argentina desde 1937 a 1949. Directorate  
General of the National Statistical Service.

A second stage took place between 1941 and 1947, with a very large increase in employment and production, halted only in 1945, when there was anxiety and uncertainty regarding the future, because of the end of the war. During these five years, employment increased at an average annual rate of more than 60,000 persons and more than 8 per cent. These were exceptional figures, since they exceeded the growth of the active population (about 45,000) by an ample margin. This means that during these years industry absorbed labour from other activities, particularly agriculture and the livestock industry which at that time were declining steadily because of difficulty in selling their production and because of prices. It should be noted that this expansion of industry was parallel to that of other activities, commerce, transport and the various services, which all demanded labour. The volume of production rose at an even sharper rate, since, except for the pause in 1945, the rate of increase varied between 12 and 15 per cent.

The output of labour, after dropping to a low of 79 in 1945 (in relation to 1937/39 = 100), recovered in the following two years to nearly 90 in 1947, that is the same as at the beginning of this stage. What happened was that after the difficulties mentioned had persisted throughout the earlier years, purchases of producer goods, whether in the form of equipment or raw materials, became more regular in 1946 and 1947. The factories were almost all working to full capacity, without interruption.

The demand for employment and the introduction of social legislation, which was a feature of the period, naturally affected the degree of effort per worker employed. Between 1943 and 1947 the number of hours worked per worker dropped by 7.5 per cent, or at an average annual rate of over 2 per cent. The quantum per man hour rose by 20 per cent between 1943 and 1947, particularly in the last two years (1946 and 1947). Although this may not have occurred in many individual establishments studied, particularly when they continued to operate with the same technical equipment, nevertheless, contrary to the opinion of many people, the figures shown by the index are very plausible. This statement is made because in these two years numerous establishments installed modern equipment acquired in the United States and Europe and very worn out equipment was completed or replaced. These events were bound to be reflected in greater productivity per man-hour.

/Meanwhile,



Meanwhile, from the point of view of cost, wages had increased greatly. The average wage rose from 1390 pesos per person employed in 1941 to 3,170 in 1947, the average increase being 5 per cent per annum at the beginning and 41 per cent in the last year. The absolute total of wages paid rose from 850 million pesos in 1941 to 3,000 million in 1947. The cost of living also rose almost as sharply until 1946, inclusive, but in 1947 the nominal wage rose more rapidly, and real wages rose to about 20 per cent above pre-war levels.

The foregoing applies to wages received directly by the worker. However, indirectly the entrepreneur paid other increases after 1945, such as the employer's contribution for pensions (11 per cent, plus 1/8 per cent of the gross receipts from sales), reserves for severance pay (8.33 per cent), the contribution to the Instituto de Remuneraciones (Wages Institute) the apprenticeship fee (1 per cent) etc., which add about 30 per cent to the figures given.

A sudden change in the situation began to be noticed from the end of 1947. It became difficult to obtain workers. These, making a business out of the benefit payable under the legislation relating to severance pay, very often began to move from one place to another, adding to the pressure on wages. Difficulties in selling the crops also began to make themselves evident, and the dollar shortage began. In the middle of 1947 the United Kingdom had once more discontinued convertibility, and so the advantages of the triangular trade with the United States vanished. It became more and more difficult to import equipment and even raw materials. These are the features of the third stage, which was still lasting at the end of 1950.

To combat inflation, it was decided in October 1948 to restrict bank credit, with the object of preventing speculative credit and the expansion of investments in new industries, the argument of full employment being advanced at the precise moment when unemployment began to be evident.

The number of workers employed was the same at the end of 1949 as two years before. For the first time since 1930 there was a secession in industrial employment. The slight increase in 1948 (1.1 per cent) was cancelled in 1949, when nine thousand workers left the factories. There are no figures for 1950 but it is very likely that this process continued. Table 8, using data of the movement published by Public Employment Service shows that demand in 1950 equalled the supply, which was very far from being the case in earlier years.

/Table 8

Table 8 Argentina: Public Employment Service

Years	Employer demand	Supply	Placement	Proportion of placement over supply %
1940	...	42,200	21,700	51
1941	...	36,300	23,400	64
1942	...	37,300	25,800	69
1943	...	28,400	23,100	82
1944	...	73,000	58,000	80
1945	...	75,200	65,200	87
1946	...	62,800	51,800	82
1947	...	54,000	48,200	89
1948	47,600	39,700	33,500	85
1949	43,200	38,000	32,000	84
1950 (a)	21,500	21,500	19,100	89

Source: Department of Employment Service (Ministry of Labour and Social Welfare)

(a) First nine months.

The volume of production, after rising by 2 per cent in 1948, fell by 3 per cent in 1949. This decline in the production of goods, linked with a contraction in imports (about 15 per cent) necessitated by the currency position, resulted in a smaller supply of goods, which helped to aggravate inflation.

The number of man-hours declined even more rapidly. The index 120 for 1947 dropped to 116.6 in 1949, for it is natural that in view of a contraction, over-time disappears before unemployment occurs. Therefore the degree of effort per worker declined from 92.5 to 89.4 (3.4 per cent) in these two years, as well as the production per worker and per man-hour.

The total amount of wages paid out in 1949 rose to 5,600 millions, that is 8 times more than in 1939, with an annual rate of increase of 35 per cent, this being somewhat lower than the rate <sup>of</sup> increase in 1947 (49 per cent) and 1948 (38 per cent). In view of the lack of work, the intense upward pressure lessened. The cost of living reached 323 in 1950 (November). This index requires correction, for the freezing of rents does not apply to all workers.

Prices, even those fixed by the Government, began to rise more rapidly than before. In view of the domestic shortage of goods, the psychological influence of the higher exchange rates, the policy of increasing wages and taxes, and finally, the international situation, real wages may be put at 125 in 1949 and possibly slightly lower for 1950, in relation to 1937-39.

During 1950, industry for the first half year was more developed under conditions similar to or worse than formerly. Industrial consumption of electricity in Greater Buenos Aires indicates reductions in the food industries, petroleum refining, manufacture of rubber and leather and in the stone, glass and ceramics industries; to judge by the same evidence, the textile industry was slack, while the paper, printing, chemical products and metal industries improved somewhat.

The important measures taken in August, when the exchange rates were raised and the scale of Assessment (Tarifa de Avalúos) was abolished, while at the same time it was reaffirmed that the exchange control would be rationally used so as to grant foreign exchange for imports of essential goods -- all these gave fresh encouragement to entrepreneurs and investors. Although the shortage of money and the restriction of credit in view of rising costs, have made it difficult for manufacturers and businessmen to maintain the working capital of their businesses, the certainty of a good future could overcome the difficulties.

/Analysis of

Analysis of the development of the different groups and branches of industry

The changes which occurred in industry as a whole during these three typical stages, were not uniform for all the different sectors of this economic activity. Each one shows certain points of affinity with the general trend, but there are also considerable and specific differences. This is also true of the different branches in each group. These differences have meant a modification in the general structure of industry, with all the present and future problems, as will be explained below.

The first significant feature is the small increase in the extractive industry (mineral extraction) over the whole period, though some increase occurred during the war years, while the supply of electricity shows an increase which is important and much above the average. Among the manufacturing industries, durable and non-durable goods, which, respectively, accounted for 30 per cent and 70 per cent of volume in 1943 and 35 per cent and 65 per cent in 1949, developed at different rates, since although there is a similar final increase, the industry of durable goods achieved its increase particularly in the two periods 1942 to 1944 and 1946 to 1947, while non-durables expanded at a more sustained rate from the beginning (Table 8). A powerful contribution to industrial growth, with quantum indices above the average, was provided by the electrical machinery, equipment and appliances industry, the industrial machinery industry, and the stone, glass and ceramics industry, among the durable goods industries; and the textile, chemical products, paper and leather industries, among the non-durable goods industries. The branches with lesser increases in production were printing, owing to difficulties in obtaining raw materials since 1943, and foodstuffs, because this industry develops strictly in keeping with the natural growth of the population and its fluctuations are rigidly bound to the standard of living. The other industrial groups not only benefited from the natural increase of consumption but have also, to a greater or lesser degree, had to replace imports, and their income-elasticity is much greater than in the case of the first. This has occurred in spite of the numerous difficulties which have hampered the free development of this sector of Argentine economy.

/As regards

As regards more recent development, since 1943, Table 9 shows the recession of the extractive industries, the slower expansion of non-durable manufactures as against durables (137 against 162), the extraordinary recovery of the rubber industry, the less vigorous recovery of printing, the strengthening of old-established industries such as the garment trade and the appearance of others, such as certain branches of the metallurgical, machinery and electrical appliances industries.

#### Extractive Industries

This group, which covers the extraction of minerals, does not account for a large share of industry as a whole (2.4 per cent of the workers employed and 2.6 per cent of the value added by production, out of the total). The production of crude petroleum is the most important in this group, employing almost half the personnel and accounting for 73 per cent of the value of the group. Employment increased with high indices until 1943 (10 per cent annually), as did the volume of production (8 per cent), particularly as a result of the rapid increase in the working of non-metallic deposits for domestic consumption (construction materials and salt) and the metallic minerals (wolfram, lead, zinc, iron and tin). Later, when the exceptional demand due to the war had ended, and when difficulties arose in supplies of materials for extraction purposes, the shortage being particularly acute in the case of materials for the petroleum industry, there were heavy reductions in production and employment. In this group the degree of effort of labour (hours worked per worker) declined considerably after 1943 (13 per cent); production per worker in 1949 was almost 30 per cent lower than in 1937. The output of production per hour has recovered its level, after a decline until 1945 (see Table 11).

#### Durable goods

The industries producing durable goods expanded as a whole between 1937 and 1949 at a somewhat higher rate than those manufacturing non-durable goods. Therefore the proportion of employment and of the value of goods out of the whole rose at the expense of non-durables. From 35 per cent of workers employed in 1937, the figure rose to 38 per cent in 1949, because the level of workers employed rose from 163,000 to 349,000, or exactly doubled. Meanwhile the figure for non-durables only rose from 302,000 to 568,000, or 82 per cent.

Table 9 Argentina: Quantum of production  
Variations in 1949 in relation to 1937-39 and 1943, by groups of industry  
Indices

Groups of industry	In relation to 1937-39 = 100	In relation to 1943 = 100
<u>EXTRACTIVE INDUSTRIES</u>	<u>119.2</u>	<u>85.3</u>
<u>MANUFACTURING INDUSTRIES</u>	<u>166.0</u>	<u>144.8</u>
<u>Durable goods</u>	<u>169.0</u>	<u>162.3</u>
Timber	168.3	134.0
Stone, glass and ceramics	183.5	131.5
Metals	152.6	201.2
Vehicles and machinery	170.5	139.4
Electrical machinery and appliances	260.8	275.9
<u>Non-durable goods</u>	<u>164.0</u>	<u>137.2</u>
Foodstuffs and beverages	130.6	109.6
Tobacco	164.1	142.5
Textiles	237.3	157.1
Garments	169.5	171.4
Paper and cardboard	175.8	118.3
Printing and publishing	114.7	144.1
Chemical products	199.0	122.9
Petroleum products	153.5	139.1
Rubber	133.3	509.1
Leather	172.1	102.9
Sundries	233.6	155.8
<u>ELECTRICITY</u>	<u>239.9</u>	<u>208.0</u>
<u>GAS</u>	<u>176.0</u>	<u>140.1</u>
GENERAL LEVEL	165.3	141.8

Source: La Actividad Industrial Argentina de 1937 a 1949.

/The quantum

The quantum index rose to a peak of 194 in 1947, in relation to 100 in 1937-39, dropping later to 168.7, while the non-durables reached their peak in 1948 with 165.0 and fell later to 164.6 in 1949.

The greatest increases in employment in the durable goods industries took place between 1940 and 1946, particularly in 1942 and 1943, with over 10 per cent annually. Later the increases declined to 3.5 per cent in 1948, and in 1949 a net decrease of 2.8 per cent occurred.

Production showed great variations, since after experiencing reductions between 1939 and 1941, and also slight increases in the two following years, they showed a sharp increase in 1944 (20 per cent), declining in 1945 and expanding again by 50 per cent out of the whole for the two following years. These were precisely the years in which large quantities of equipment were acquired. The distinctive feature of these years of great expansion was a great optimism as regards the future, once the war had been decided and ended, and with the help of a vigorous industrial policy many entrepreneurs carried out expansions or installed new plants.

The heavy imports of these years reduced the demand for producer goods in the following years. The subsequent changes in industrial policy influenced the earlier enthusiasm for the installation of new factories. Import restrictions led to shortages in the supply of industrial raw materials for these groups of industry. That is why the level of production fell by 4 per cent in 1948 and by 10 per cent in 1949.

The labour output, or production per worker fell from 100 in 1937-39 to about 70 between 1942 and 1946. Later it rose to over 90, declining again to 83.6 in 1949 (Table 10).

#### Non-durable goods

The industries producing non-durable goods developed much more normally and evenly than those producing durable goods. Employment rose at first by 3 per cent, then, in 1942, by as much as 9.5 per cent, and later increased with less intensity each year until reaching a rate of 3.3 per cent in 1948, remaining virtually stationary in 1949. Production also increased without interruption and with the same intensity until 1943 (3 to 5 per cent annually). Later production increased by about 10 per cent in 1944 and 1946, at rather lower rates later, and actually fell off by 0.2 per cent in 1949.

Table 10 Argentina: Industrial development according to  
major groups of industry  
Durable goods

Years of workers	Workers employed		Annual increase		Q u a n t u m		Labour output per worker employed 1937-39 = 100
	Number	1937-39	Absolute	Per cent	1937-39	Average annual	
	a	b	c	d	e	e'	$p = \frac{e}{b}$
1937	162,774	94.1	...	...	99.1	...	105.3
1938	...	...	10,217	6.3	100.0	0.9	100.0
1939	183,208	105.9	10,217	5.9	100.9	0.9	95.3
1940	...	...	17,380	9.5	100.5	-0.4	88.2
1941	210,769	121.8	17,381	8.8	100.1	-0.4	82.2
1942	...	...	24,062	11.4	102.0	1.9	75.2
1943	258,894	149.7	24,063	10.2	104.0	2.0	68.5
1944	...	...	25,360	9.8	125.7	20.9	76.5
1945	...	...	25,361	8.9	125.3	-0.3	70.0
1946	334,976	193.6	25,361	8.2	147.3	17.6	76.1
1947	...	...	12,081	3.6	194.5	32.0	96.7
1948	359,139	207.6	12,081	3.5	186.7	-4.0	90.4
1949	348,976	201.7	-10,163	-2.8	168.7	-9.6	83.6

Source: Basic data from the industrial statistics in La Actividad Industrial  
Argentina de 1937 a 1949.



The lesser increase in the production of goods than in employment, implied a reduction of 17 per cent in output per worker between 1937 and 1945. Later, however, output rose until it was only 10 per cent lower in 1948 and 1949, in relation to 100 in 1937-39 (see Table 11).

Table 11     Argentina:     Industrial development according to major groups  
of industry

Years	Non-durable goods						
	Workers employed		Annual increase		Q u a n t u m		Labour output per worker employed 1937-39=100
	Number of Workers	1937-39 = 100	Absolute	Per cent	1937-39 = 100	Average annual increase %	
a	b	c	d	e	f	$p = \frac{e}{b}$	
1937	301,686	96.6	-	-	94.7	-	98.0
1938	-	-	10,719	3.6	100.0	5.6	100.0
1939	323,125	103.4	10,720	3.4	105.3	5.3	101.8
1940	-	-	21,658	6.7	108.7	3.2	98.5
1941	366,442	117.3	21,659	6.3	112.1	3.1	95.6
1942	-	-	34,974	9.5	116.0	3.5	90.3
1943	436,391	139.7	34,975	8.7	120.0	3.4	85.9
1944	-	-	32,170	7.4	132.2	10.2	88.1
1945	-	-	32,171	6.9	133.8	1.2	83.5
1946	532,903	170.6	32,171	6.4	147.9	9.5	86.7
1947	-	-	17,946	3.4	158.0	6.8	89.6
1948	568,795	182.1	17,946	3.3	165.0	4.4	90.6
1949	568,093	181.8	- 702	- 0.1	164.6	- 0.2	90.5

Source: Basic data from the industrial statistics in La Actividad Industrial Argentina de 1937 a 1949.

Foodstuffs and beverages

This group covers the old-established and typical export industries such as meat packing plants and flour mills, or industries working for the home market with domestic raw materials, such as sugar, meat processing, beer, noodles etc., to which many oil mills have been added in recent times. These oil mills were installed with official support, and produce for export after fully satisfying domestic requirements. Fish canning and other canning industries have lost some of their importance through the greater increase of these others. Until 1944 employment rose by an average of more than 5 per cent a year, and the quantum by

/3 per cent.

3 per cent. This signifies a 13.4 per cent decline in output per worker. However, the advantageous conditions of an increase in foreign demand or expanding domestic consumption, which was generally very high, except in the case of meat-packing plants, mills, sugar and rice, was followed by a period of decline in employment and in some years in the quantum of production (1945 and 1948 particularly). This was due to the difficulties experienced by the meat-packing industries (successive strikes and notable declines in exports) which brought production to a minimum; similar setbacks were suffered in the production of canned meat, fruit and vegetables. The output per worker remained stable, varying around the same level in relation to the man-hours worked.

In this group there were particularly notable increases in quantum and employment in the manufacture of fish, edible oils, mineral waters and soft drinks, biscuits, malt and powdered yeast for baking (Table 12).

Table 12: Argentina: Industrial development according to groups of industry

I. Foodstuffs and beverages

Years	Workers employed		Annual increase	Q u a n t u m		
	Number of Workers	1937-39 = 100	Percentage	1937-39 = 100	Average annual increase	Labour output per worker employed 1937-39 = 100
1937	114,200	96.3	-	95.3	-	99.0
1938	119,200	100.6	4.4	-	4.9	-
1939	122,400	103.2	2.7	104.7	4.7	101.5
1940	125,300	105.6	2.4	-	0.3	-
1941	140,100	118.2	11.8	105.4	0.3	89.2
1942	150,700	127.1	7.6	-	6.5	-
1943	163,100	137.6	8.2	119.1	6.1	86.6
1944	181,900	153.4	11.5	127.0	6.6	82.8
1945	177,000	149.2	- 2.7	117.6	- 7.4	78.8
1946	186,700	157.4	5.5	125.4	6.6	79.7
1947	210,600	177.6	12.8	136.2	8.6	76.7
1948	202,600	170.8	- 3.8	129.1	- 5.2	75.6
1949	196,000	165.3	- 3.3	130.6	1.2	79.0

Source: Basic data from the industrial statistics in La Actividad Industrial Argentina de 1937 a 1949.

/Tobacco

Tobacco

Importing difficulties and higher consumption favoured this industry which showed a continuous increase in volume of production throughout the period. This is the group showing the greatest increase in productivity per worker, since the increase in personnel proceeded at a much slower rate than that of the volume of production. If the comparison is made with man-hours, the improvement is even greater because the degree of effort per man declined since 1943 by 17 per cent.

It should also be noted that the processing of tobacco is an industry where the incidence of nominal wages per unit of production has been least marked, since they barely trebled, whereas for industry as a whole nominal wages increased fivefold (Table 13).

Table 13     Argentina:     Industrial development according to groups of industries

Tobacco

Years	Workers employed		Annual Increase		Q U A N T U M	
	Number of Workers	1937-39 = 100	Percentage	1937-39 = 100	Average Annual Increase %	Output per worker employed 1937-39 = 100
	a	b	d	c	c'	$P = \frac{c}{b}$
1937	8,321	98.9	-	95.2	-	96.3
1938	8,626	102.5	3.7	-	5.0	-
1939	8,297	98.6	- 3.8	104.8	4.8	106.3
1940	8,240	97.9	- 0.7	-	0.6	-
1941	8,219	97.6	- 0.4	106.0	0.6	108.6
1942	8,459	100.6	2.9	-	4.3	-
1943	8,777	104.3	3.8	115.1	4.1	110.4
1944	9,082	108.0	3.5	119.5	3.8	110.6
1945	9,810	116.6	8.0	126.9	6.2	108.8
1946	9,864	117.1	0.6	135.1	6.5	115.4
1947	9,846	117.0	- 0.2	145.1	7.4	124.0
1948	10,081	119.8	2.4	153.1	5.5	127.8
1949	10,370	123.2	2.9	164.1	7.2	133.2

Source:     Basic data from the industrial statistics in La Actividad Industrial Argentina de 1937 a 1949

/ Textiles

Textiles

This group includes the textile industry proper: the production of yarns from raw materials, the production of fabrics and twists, and dyeing. Since there was a high level of consumption, large quantities of imports to be replaced and an abundance of raw materials (cotton and wool), there was naturally a great deal of development. Nevertheless, until the early thirties, the part played by imports was very great, for imports supplied 92 per cent of consumption. <sup>1/</sup> The competition of the old European countries was very keen, being favoured by a very liberal Argentine policy. Those same fundamental factors of high consumption and abundant raw materials, however, made it necessary and easy to encourage the installation of extra spindles and looms when markets became congested and there was a fall in the prices of these raw materials abroad. Up to 1937 there was a considerable increase in the number of mills, bringing the proportion of supplies covered by domestic production up to 40 per cent. In 1938, the traditional producers tried to reconquer the market, and created very serious difficulties for the new industries, thus making decisive protective action necessary. During the war, the position of the textile industry became stronger, and the products included all coarse and medium cotton and wool yarns and fabrics as well as some fine qualities. Production and employment increased very considerably, at an annual rate exceeding ten per cent between 1941 and 1946, with a slight pause in 1945. By 1945, the volume of production was twice what it was before the war, and the number of workers employed was 86 per cent greater. This indicates an increased output per worker employed, an increase which continued steadily until 1949.

In the years referred to, the output of the mills increased through better use of machinery, work being organized in three shifts and continuing on holidays, but it was not possible to extend or improve their equipment. Repairs and adjustments were to some extent made possible through the splendid effort of the Argentine workshops, which successfully produced excellent looms of various  
/types

---

<sup>1/</sup> Emilio Llorens. Encuesta continental sobre el consumo de productos de alimentación y vestido y sobre la vivienda popular. Montevideo 1944, page 33.

types, including automatic looms, and spinning machines. In 1946 and 1947, and to a lesser extent in 1948 and at the beginning of 1949, heavy purchases/abroad; <sup>were made</sup> unfortunately, the purchase did not always consist of new equipment embodying the latest improvements; much of it was old, reconditioned machinery. Nevertheless, these increases and those achieved with the help of domestically produced machinery enabled production to be increased again by about 10 per cent in 1948 and about 4 per cent in 1949. Actually, production in 1949 was 2.37 times greater than in 1937-39. The number of workers employed increased from 61,000 to 133,000, so that the textile industry ranks second to the food industry as an employer of labour.

The output per worker increased by 11 per cent during the period (20 per cent since 1943), and the output per man-hour by 20 per cent after 1943. At the same time, the degree of effort decreased by almost 10 per cent.

As in the other cases, development in this industry varied greatly from group to group. Wool-washing and cotton-ginning, the two primary industries, developed differently, the first being stimulated not only by the growing demand of the spinning mills, but also and chiefly by exports. Between 1937 and 1946 production tripled, and half of the 220,000 tons of wool which the country produces was washed. Owing, however, to circumstances similar to those which occurred after the 1914-18 war, the buyers, at the end of hostilities, began to prefer unwashed wool again, for very complex reasons which need not be explained here. Consequently there was a substantial reduction in the work of the wool washers, output falling by almost half in 1949 and the decline continuing in 1950. The domestic market remains, though this also suffered from the decline in exports of finished and semi-finished products, and absorbs 30,000 tons of washed wool a year, and there are also a number of markets partly protected by clauses in trade agreements.

The development of the yarns and fabrics branch is following the general movement already described, though at a somewhat greater rate of growth, since for 1949 the quantum index of production based on 1937-1939 = 100 reached 288, as against 237 for the whole group. In this case, the output per worker increased by 20 per cent during the period, as against only 11 per cent in the group as a whole.

/The manufacture

The manufacture of hosiery and fabrics was handicapped by the shortage of imports of raw materials, but the increase in the production of synthetic textile fibre yarns made it possible to increase the number of mills, principally for standard fabrics. The industrial dye works quadrupled their output in twelve years, performing efficiently the task of finishing the fabrics produced, though the shortage of good aniline dyes was and still is being felt.

Except in the hosiery branch, the output per worker increased by between 20 and 50 per cent.

For the group as a whole, and for its main items, production in 1949 was greater than in 1948, but the rate of increase declined (Table 14).

#### Garment Industry

The garment and miscellaneous textile industry is concerned with the conversion of fabrics into articles of use and employs 57,000 workers as against 30,000 in 1937. <sup>1/</sup> Its growth has been continuous, accompanying the increase in domestic consumption due to better wages. Between 1942 and 1946, and again in 1949, the number of workers employed increased sharply, while the quantum indices were unfavourable up to 1943, rising by about 1 per cent per year. They then rose to 178 in 1948 and fell again in 1949.

Analysis of the groups of production shows a decrease in the production of burlap bags, rope-soled shoes, felt hats and garments in large stores. In the first case, the decrease was due to shortage of raw material, which is imported; while in the case of rope-soled shoes the decrease was also partly produced by the same cause but was chiefly due to the fact that price control removed the incentive to step up production (Table 15).

#### Paper and cardboard

This industry used to satisfy only part of the demand, specializing in standard and thick cardboards and papers largely manufactured from imported wood pulp or old paper and rags. During the early years the industry expanded considerably, at the rate of more than 10 per cent a year between 1937 and 1941. Then difficulties arose in connexion with the supply of raw materials, and the increase was much smaller, until, with the resumption of imports of mechanical and chemical pulp, a further increase became possible. In 1949, production fell by about 2 per cent as a result of the crisis in the printing industry.

/Table 14

<sup>1/</sup> This of course includes only establishments such as department stores, tailoring firms, clothiers, drapers, hatters and bag-manufacturers. It does not include home workers. It is estimated that the garment industry gives work to more than 300,000 persons in Argentina.

Table 14 Argentina: Industrial development according to groups of industries

III. Textiles

Years	<u>Workers employed</u>		<u>Annual Increase</u>		<u>Q u a n t u m</u>		
	Number of 1937-39 Workers = 100		Percentage	1937-39 = 100	Average Annual Increase	Output for Worker employed	1943 = 100
1937	61,400	98.4	-	94.9	-	96.4	-
1938	-	-	1.7	-	5.4	-	-
1939	63,493	101.6	1.7	105.1	5.1	103.4	-
1940	68,264	109.4	7.5	-	5.6	-	-
1941	71,800	115.0	5.2	116.9	5.3	101.7	-
1942	83,588	133.9	16.4	-	14.6	-	-
1943	92,876	148.8	11.1	151.1	12.8	101.5	100.0
1944	101,328	162.4	9.1	170.7	13.0	105.1	103.5
1945	107,829	172.8	6.4	184.0	7.8	106.5	104.9
1946	116,210	186.2	7.8	202.6	10.1	108.8	107.2
1947	122,875	196.9	5.7	206.6	1.9	104.9	103.4
1948	130,754	209.4	6.4	228.2	10.5	109.0	107.4
1949	133,200	213.4	1.9	237.3	4.0	111.2	109.6

Source: Same as for preceding tables.



Table 15 Argentina: Industrial development according to groups of industriesIV. Garment industry

Years	Workers employed		Annual Increase		Q u a n t u m		
	Number of Workers	1937-39 = 100	%	1937-39 = 100	Average Annual Increase	Output of labour per worker employed	per man-hour 1943 = 100
1937	29,932	97.7	-	98.4	-	100.7	-
1938	-	-	2.4	-	1.6	-	-
1939	31,346	102.3	2.3	101.6	1.6	99.3	-
1940	-	-	3.5	-	1.1	-	-
1941	33,558	109.5	3.4	99.4	1.1	90.8	-
1942	-	-	7.8	-	0.2	-	-
1943	38,808	126.7	7.3	98.9	0.3	78.1	100
1944	-	-	9.0	116.9	17.2	-	-
1945	-	-	8.3	123.9	6.0	-	-
1946	49,281	160.8	7.6	127.6	3.0	79.4	-
1947	-	-	2.8	142.7	11.8	-	-
1948	52,051	170.0	2.7	176.3	23.5	103.7	137.6
1949	57,449	187.6	10.4	169.5	3.9	90.4	121.5

Source: Same as for preceding tables.

/The degree

The degree of effort was gradually reduced, and in 1949 it was only some 88 per cent of that for 1943. The productivity of labour, which fell from 100 in 1943 to 87 in 1946, partially recovered in the following years, and consequently the output per man-hour increased.

In this group special importance attaches to the production of wood pulp, which, in spite of the growing demand, and although production had quadrupled between 1937 and 1944, declined when foreign competition appeared on the market. Nevertheless, the present level of production is some 76 per cent higher than before the war. Also, in 1949 the production of paper envelopes and bags decreased by about 36 per cent (Table 16).

#### Printing and publishing

This industry, so closely connected with culture, displayed in its recent development characteristics which are quite different from those displayed by industry as a whole and by other groups. The paper shortage, labour disputes and, lastly, the loss of part of the Spanish-American market for books published in Argentina, are difficulties that have been encountered in years of recession in this industry, as for example in 1942 and 1943 and more recently in 1949 and 1950. Over the whole period, however, the group shows a 15 per cent increase in production, the lowest increase out of all the groups. The increase in employment was somewhat greater, 35 per cent. The productivity of labour, therefore, was in 1949 only 85 per cent of that for 1937-39. Analysis of development from year to year, however, shows that from 1941 to 1943 production declined owing to the shortage of paper and then recovered, the average annual rate of increase being almost 10 per cent until 1948. The productivity of labour, which had declined to 72 in 1943, rose again to 85; and output per man-hour will be found, since 1943, to have undergone a considerable increase of about 43 per cent.

Analyzing the branches constituting the industry, we note that the recent decline in production is due to the reduced activity of newspaper enterprises owing to the shortage of paper. The enterprises concerned have been obliged to cut down their staff by 2,500 workers (Table 17).

#### Chemical Products

Except for electrical products, this group shows the greatest increase in production during the period under consideration, output having doubled and the number of workers grown 2.4 times.

Table 16 Argentina: Industrial development according to groups of industries  
V. Paper and cardboard

Years	Workers employed		Annual Increase	Q u a n t u m		
	Number of Workers	1937-39 = 100	%	1937-39 = 100	Average Annual Increase	Output per worker employed 1937-39 = 100
1937	8,321	95.8	-	87.5	-	91.3
1938	8,519	98.0	2.4	-	14.3	102.0
1939	9,219	106.2	8.2	112.5	12.5	105.9
1940	10,323	118.8	12.0	-	10.2	104.4
1941	11,251	129.5	9.0	135.5	9.3	104.6
1942	12,557	144.5	11.6	-	4.8	98.3
1943	13,875	159.7	10.5	148.5	4.6	93.0
1944	14,652	168.6	5.6	149.6	0.7	88.7
1945	15,401	177.2	5.1	152.0	1.6	85.8
1946	17,112	196.9	11.1	158.8	4.5	80.7
1947	17,621	202.8	3.0	169.5	6.7	83.6
1948	17,736	204.1	0.7	179.5	5.9	87.9
1949	17,413	200.4	- 1.8	175.8	- 2.1	87.7

Source: Same as for preceding tables.

/Table 17

Table 17     Argentina: Industrial development according to groups of industries

VI. Printing and Publishing

Year	Workers employed		Annual Increase	Q u a n t u m		
	Number of Workers	1937-39 = 100	%	1937-39 = 100	Average Annual Increase	Output per worker employed 1937-39 = 100
1937	22,681	97.2	-	95.5	-	98.2
1938	-	-	2.9	-	4.7	100
1939	23,995	102.8	2.8	104.5	4.5	101.7
1940	-	-	2.0	-	1.3	100.2
1941	24,964	107.0	2.0	107.4	1.4	100.4
1942	-	-	1.5	-	12.9	86.2
1943	25,695	110.1	1.4	79.6	14.9	72.3
1944	-	-	10.8	92.8	16.6	76.1
1945	-	-	9.7	94.6	1.9	70.8
1946	33,986	145.5	8.9	112.1	18.5	77.0
1947	-	-	- 1.0	114.8	2.4	79.7
1948	33,277	142.5	- 1.1	124.1	8.1	87.1
1949	31,487	134.8	- 5.4	114.7	- 8.2	85.1

Source: Same as for preceding tables.

/The period

The period of greatest increase was between 1938 and 1947, the 1945 decline being due to the dislocation caused by the shortage of imports and by the wait-and-see attitude concerning the future.

For more recent years, 1948 and 1949, the statistics show slight reductions in output though not in the number of workers.

The degree of effort per worker has fallen by 20 per cent since 1949 and output per worker was in that year some 15 per cent lower than in 1943, but output per man-hour shows slight increases in this case also.

The groups of this industry differ greatly in respect of the type and origin of the raw materials used, the nature of the labour involved and the part played by power and fuel, the use to which the products are put and the amount of competition encountered. This lack of uniformity is reflected in the greatly varying trends of production, employment and output in the branches of industry concerned. No group is of great importance, because the country is short of heavy chemicals. The main items are the manufacture of rayon and soap, and the production in laboratories of pharmaceutical and medicinal products, which, incidentally, are those which have shown the great increase in the 12 years under consideration.

The production of rayon, which was in its early stages in 1937, when there were only two factories, developed rapidly, the existing factories first being extended, in spite of the fact that the industry was controlled both as to price and as to distribution of product, and new factories, now entering into production, being installed later. The dislocation of world production caused by the defeat of the Axis countries, formerly the largest producers, led to a world shortage, which has still not been overcome. Production increased almost four times as compared with 1937-39 and by 183 per cent as compared with 1943. The greatest increase took place in 1949.

The production of washing soap was handicapped only between 1944 and 1946, owing to the shortage of raw materials and the control of exports.

The production of medicinal and pharmaceutical goods which supplied the whole market between 1937 and 1947, increased fourfold, totally replacing imports and providing for the needs of increased consumption and exports. After that there was a recession (from 122-115), principally owing to export difficulties.

/In spite

In spite of increased demand, the paint industry did not increase production during the war years, owing to difficulties in connexion with the import of colours, but between 1945 and 1948, the index of production rose from 111 to 180, and then fell again in 1949 to 144.

The production of vegetable oils (almost exclusively linseed, edible oils being included in another group) was insignificant, because local consumption is very low. The Government's plan to use the seeds, which were formerly burned in furnaces, for the extraction of fuel or for preserving purposes led to an almost tenfold increase in production (8.2 times greater in 1944 than in 1937). Output under this State plan fluctuated sharply according to the quantities of seeds available. In 1945 and 1946 the amount of seed available was very small in relation to production capacity, which already exceeded the possibilities of supply, and production fell by half. In 1947, it recovered, only to fall again in 1948 and still more sharply in 1949. Although production has quadrupled compared with 1937-39, the level is low in relation to actual conditions in the years 1943 and 1948.

The consumption of alcohol made from sugar cane molasses and that obtained from the bagasse of grapes or maize increased owing to the rising demand for alcoholic beverages or the development of the various alcohol-consuming industries. Except for a decrease in 1945, the quantities of molasses intended for the production of alcohol increased from year to year and new plants for the extraction of alcohol from cereals were installed. In 1946 the production of 120 million litres was authorized (three times the existing production) for the manufacture of motor-fuel mixed with naphtha. The existing plants are now State-controlled (National Directorate of State Industries).

During the period under consideration, the typical quebracho extract industry underwent sharp alternations of expansion and recession. The heavy exports to all industrial countries in the last years of peace were interrupted in many cases in 1939, 1940 and 1941. There were five years of crisis (1940 to 1944), work stoppages and surplus productive capacity. After a good recovery from 1945 to 1948, a 50 per cent reduction took place between 1946 and 1949. Competition has begun to be felt from tanning extracts of mimosa produced in South Africa.

With regard to output, the level per worker in this branch is, as compared with 1939, generally below the level for the unit (except in the case of matches and printing inks) (Table 18).

/Table 18

Table 18 Argentina: Industrial development according to groups of industries  
VIII. Chemical products

Years	<u>Workers Employed</u>		<u>Annual Increase</u>		<u>Quantum</u>	
	Number of workers	1937-39 = 100	Percentage	1937-39 = 100	Average annual increase %	Output per worker employed 1937-39 = 100
	a	b	d	o	o'	$p = \frac{o}{b}$
1937	16,103	96.0	...	88.1	...	91.8
1938	...	...	4.2	...	13.5	100.0
1939	17,469	104.0	4.1	111.9	11.9	107.6
1940	19,620	116.9	12.3	...	14.2	109.3
1941	20,285	120.9	3.4	143.8	12.5	118.9
1942	24,195	144.1	19.3	...	6.3	106.0
1943	28,068	167.2	16.0	161.9	6.0	96.8
1944	27,759	165.4	1.0	182.8	12.9	110.5
1945	32,419	193.1	16.8	170.7	- 6.6	88.4
1946	35,114	209.2	8.3	178.3	4.5	85.2
1947	36,432	217.0	3.5	200.1	13.3	93.1
1948	38,727	230.6	6.3	199.5	- 1.3	86.5
1949	40,437	241.0	4.4	199.0	- 0.3	82.6

Source: Same as for preceding tables.

/Petroleum

Petroleum products

There was no increase either in the number or in the capacity of the oil refineries, except in the case of small undertakings which recover oil from waste materials. The activity of the industry depended not on requirements but on the possibilities of obtaining crude petroleum, the domestic production of petroleum being restricted by the shortage of exploring and operating equipment. That is why during the war years production remained almost stable, but increased after 1945 by about 50 per cent until 1948. In 1949 it remained almost at the same level as in 1948, refining capacity having almost reached its maximum. In this last five-year period, the index of man-hours increased less than that of employment. Degree of effort fell by about 20 per cent; still, whereas output per worker fell absolutely by 10 per cent, output per man-hour increased by 11 per cent (Table 19).

Rubber.

The development of the rubber industry has been determined by its almost complete dependence on foreign raw materials as well as by the requirements of consumption. Still, the scarcity during the years 1942 to 1945 was to some extent alleviated by reclaimed rubber.

The index for the total production of rubber manufactures fell from 110 in 1941 (base 1937-1939 = 100) to 25 in 1943 and a low of 22 in 1945. This is the steepest drop in the output of any industrial group caused by the war. The index then shows total recovery, rising to 153 in 1947. When the excess demand had been satisfied, the index fell slightly, since the restriction on imports of automobiles prevented a possible increase in consumption. Naturally, the indices of employment do not run parallel with this development to the full extent of the changes involved, and there was a reduction of employment only in 1943 even though man-hours suffered an abrupt decline. The degree of effort remained stable between 1943 and 1949, but the index of production per man-hour increased by 221 per cent between 1943 and 1947. This was due to the very low productivity of labour during the industry's years of recession.

These sharp variations were greater in the tyre-manufacturing branch, and less in the manufacture of rubber footwear and miscellaneous articles (Table 20).

/Table 19



Table 19     Argentina: Industrial development according to groups of industries  
IX. Petroleum products

Years	<u>Workers Employed</u>		<u>Annual Increase</u>	<u>Quantum</u>		
	Number of Workers	1937-1939 = 100	Percentage	1937-1939 = 100	Average annual increase %	Output per worker employed. 1937-1939 = 100
	a	b	d	o	o'	$p = \frac{o}{b}$
1937	3,196	91.9	...	94.0	...	102.3
1938	...	...	8.8	...	6.4	100.0
1939	3,760	108.1	8.1	106.0	6.0	98.1
1940	3,692	106.1	- 1.8	...	3.6	103.5
1941	3,873	111.3	4.9	113.7	3.6	102.2
1942	3,917	112.6	1.1	...	- 1.5	99.5
1943	4,017	115.5	2.6	110.3	- 1.5	95.5
1944	4,005	115.1	- 0.3	107.6	- 2.4	93.5
1945	4,146	119.2	3.5	103.3	- 4.0	86.7
1946	4,265	122.5	2.9	125.1	21.1	102.1
1947	4,656	133.8	9.2	131.6	5.2	98.4
1948	5,711	164.2	22.7	152.6	16.0	92.9
1949	6,261	180.0	1.0	153.5	0.6	85.3

Source: Same as for preceding tables.

/Table 20

Table 20 Argentina. Industrial development according to groups of industries

X. Rubber

Years	<u>Workers Employed</u>		<u>Annual Increase</u>		<u>Quantum</u>	
	Number of Workers	1937-1939 = 100	Percentage	1937-1939 = 100	Average annual increase %	Output per worker employed 1937-1939 = 100
	a	b	d	o	o'	$p = \frac{o}{b}$
1937	5,296	92.0	...	101.2	...	110.0
1938	...	...	8.6	...	- 1.2	100.0
1939	6,215	108.0	8.0	98.8	- 1.2	91.5
1940	6,950	120.8	11.9	...	5.7	86.4
1941	7,806	135.7	12.3	110.0	5.4	81.1
1942	5,711	99.2	26.8	...	-38.7	67.9
1943	4,333	75.3	-24.1	- 24.7	-63.4	32.8
1944	4,359	75.8	0.6	23.3	- 5.7	30.7
1945	5,165	89.8	18.5	22.3	- 4.3	24.8
1946	6,356	110.5	23.1	85.9	285.2	77.7
1947	8,341	145.0	31.2	152.9	78.0	105.4
1948	10,307	179.1	23.6	148.4	- 2.9	82.9
1949	10,535	183.1	2.2	133.3	-10.2	72.8

Source: Same as for preceding tables.

/Durable goods

Durable goodsTimber

This group of industries is included among the industries producing durable goods, although some of its branches could not specifically be regarded as producers of such goods.

For various reasons, the development of this industry was not very extensive in spite of the nation's wealth of timber. The use of the Argentine forests, which are situated far from the centres of consumption, was not favoured by the high railway freight charges and the customs system. Most of the timber used was always imported, not only white wood, which can be grown in the country only by artificial afforestation, but also hard woods, of which Argentina possesses some excellent types.

The change in the traditional trade currents has resulted in an intensification in the working of Argentine forests, and also in afforestation, which, if conducted in accordance with a firm licensing and credit policy, will enable a large proportion of future consumption to be supplied.

The timber products industries expanded greatly between the years 1941 and 1945, at the average rate of about 20 per cent a year. Then came a period of relative stagnation, and lastly, in 1949, a fall in output of 10 per cent as compared with 1948. In this case also there was a decline in the number of hours worked per worker (13 per cent between 1943 and 1949). Output per worker employed dropped considerably until 1943 (by more than 30 per cent) and then rose by some 25 per cent between 1943 and 1949. Output per man-hour increased by 44 per cent between 1943 and 1949.

Analysis of the groups of this industry shows that the manufacture of furniture increased more than 100 per cent, the greatest increase occurring in 1948. The cause of this increase was the rise in demand due to the higher marriage rate. Between 1938 and 1947 the number of marriages concluded annually throughout the country rose from 89,000 to 139,000. In addition, the higher standard of living of the working-class population led to a higher consumer demand for furniture. This branch shows an increase in output in relation to the number of workers employed, owing to the greater mechanization of production (24 per cent increase between 1939 and 1949).

The manufacture of packing-cases and boxes has fallen by about half since 1944. The number of workers employed in the factories, however, did not fall. The output per worker employed is therefore one of the smallest in all branches of industrial activity: 52 per cent of the output in 1937-39.

Structural carpentry was affected by the shortage of imports, in spite of the heavy demand for building. Since 1947, however, production has increased by about 30 per cent. The output per worker was slightly higher in 1949 than in the previous years.

Another, though not very important feature, is the considerable decrease in the production of tuns, casks and barrels, the percentage being 44 in 1949 as compared with 150 in 1943. Thus, production is lower than before 1939 (Table 21).

#### Stone, glass and ceramics

This group of industries shows little homogeneity. It is closely connected with and predominantly influenced by building. The raw material is of domestic origin and is generally abundant, except in the case of glass, which depends upon sodium carbonate and certain types of imported sands. It is, however, also affected by the supply of energy and transport and, of course, as in most industries, the possibilities of replacing equipment.

The production of the factories as a whole has been on a steadily upward trend, except in 1948, particularly marked increases occurring in 1942 and 1943, and again in 1947. Employment rose from 22,000 workers in 1947 to 60,000 in 1949, when the greatest increase took place. Output per worker fell to 100 in 1937-39, and in 1945 to 70; since then it has been fluctuating between these two figures. As man-hours increased less than employment after 1943, the degree of effort declined until 1948, and remained steady in 1949. Output per man-hour, which had fallen by some 20 per cent between 1943 and 1946, all but regained the 1943 level in 1949.

Of the 60,000 workers employed, 16,000 belong to the glass factories, which are those where the output is the greatest in the whole group. By substituting Argentine products for part of the raw materials formerly imported, the industry has been able, in spite of the difficulty of obtaining fuel, to keep pace with the growing demand, not only for sheet glass for building, but also and mainly for bottles and glassware. The production of bottles required

Table 21 Argentina: Industrial development according to groups of industriesXI. Timber

Years	<u>Workers employed</u>		<u>Annual Increase</u>	<u>Quantum</u>		
	Number of Workers	1937-1939 = 100	Percentage	1937-1939 = 100	Average annual increase %	Output per Worker employed. 1937-1939 = 100
	a	b	d	o	o'	$p = \frac{o}{b}$
1937	36,371	93.8	...	102.0	...	108.7
1938	...	...	6.5	...	-2.0	100.0
1939	41,123	106.2	6.1	98.0	-2.0	92.3
1940	...	...	11.5	...	0.4	83.2
1941	50,577	130.6	10.3	98.9	0.5	75.7
1942	...	...	21.5	...	13.4	70.8
1943	72,303	186.6	17.7	125.6	11.9	67.3
1944	...	...	10.0	174.2	38.7	84.9
1945	...	...	9.1	168.7	-3.2	75.4
1946	93,949	242.3	8.3	181.2	7.4	74.8
1947	...	...	-5.3	179.0	-1.2	78.1
1948	83,908	216.4	-5.6	187.4	4.7	86.6
1949	77,087	198.9	-8.1	168.3	-10.2	84.6

Source: Same as for preceding tables

/the extension

the extension of existing factories and the installation of many others in various parts of the country, some with highly mechanized methods of production. Since before the war production has increased by 130 per cent. A large proportion of this increase was achieved between 1937 and 1943. Since 1943 the increase has been about 25 per cent. Output per worker has fallen by about 20 per cent.

Though employing fewer workers, the cement-producing industry, the development of which has been considerably handicapped, is of greater importance to the nation. Even though productive capacity exceeds 2,000,000 tons, production, for various reasons, has never exceeded 1,400,000 tons, whereas potential consumption is much greater. The first of the difficulties was shortage of fuels; then came transport; and later, Government price control prevented the undertakings from building up the reserves necessary for completing and extending their installations. In 1949 production was some 34 per cent greater than in the pre-war period. Output per worker rose by about 11 per cent.

The production of mosaics and articles made of cement and fibre cement is dependent on supplies of the principal raw material, cement.

The production of pressed bricks has developed very successfully and steadily, having increased by five times in the course of twelve years. The replacement of imports has been accompanied by an effort to improve technique, which, though not successful in all respects, has constituted a sound basis for development. Very good quality special clays have been found. It is noteworthy that the estimated output per person employed shows a drop of 55 per cent between 1937-39 and 1947. There is also a decrease of some 28 per cent in output per man-hour between 1943 and 1949 (Table 22).

#### Metals, excluding machinery

From 1937 to 1943, the smelting and fabrication of iron and other metals suffered declines in production, amounting in all to 25 per cent. There was a shortage of raw material, technical skill and machinery, and a lack of confidence in the industry's possibilities. This trend of the whole group is displayed in particular by the sheet metal, bolts and screws, iron pipes, galvanized iron and light ironwork industries. Since then, great increases occurred up to 1948, a level of production 50 per cent higher than in 1937-39 and 100 per cent higher than in 1943 being reached. In 1949 production

Table 22 Argentina: Industrial development according to groups of industriesXII. Stone, glass and ceramics

Years	<u>Workers employed</u>		<u>Annual Increase</u>		<u>Quantum</u>	
	Number of Workers	1937-1939 = 100	Percentage	1937-1939 = 100	Average annual increase %	Output per worker 1937-1939 = 100
1937	21,611	93.4	...	94.1	...	100.7
1938	...	...	7.1	...	6.3	100.0
1939	24,687	106.6	6.6	105.9	5.9	99.3
1940	26,033	112.4	5.5	...	4.8	98.8
1941	28,562	123.4	9.7	116.1	4.6	94.1
1942	31,898	137.8	11.7	...	10.1	92.7
1943	36,207	156.3	13.5	139.5	9.2	89.3
1944	41,385	178.7	14.3	141.7	1.6	79.3
1945	48,445	209.2	17.1	147.9	4.4	70.7
1946	53,862	232.7	11.2	152.4	3.0	65.5
1947	54,998	237.5	2.1	174.3	14.4	73.4
1948	59,582	257.4	8.3	174.2	-0.1	67.7
1949	60,387	260.8	1.4	183.5	5.3	70.4

Source: Same as for preceding tables

/remained

remained stationary. During the period this branch absorbed 45,000 additional workers (twice the 1937 figure), and the index of output per worker, which had fallen from 100 to 57 in 1943, then rose to 82 per cent of the 1937-39 level in 1949. Since the number of man-hours between 1943 and 1949 increased by about 32 per cent, productivity per man-hour increased by 52 per cent.

The greatest increases are to be observed in the manufacture of iron and steel pipes, the output of which tripled, in spite of the decline between 1939 and 1943. The manufacture of kitchen ranges and other fittings rose by 158 per cent and copper and brass casting by 120 per cent.

From the point of view, however, of the magnitude of the increase in production and its economic significance, the development in steel casting is of much more importance. Production of this item doubled since 1943 and is still increasing after the installation of new blast furnaces and rolling mills and the modernization of existing ones. During the war years these worked largely with scrap iron, and today a return has been made to imports of pig iron and steel rods, either from the European countries or from Chile, whose Huachipato blast furnaces have found a safe market in the Argentine steelworks.

The determined policy of protection for this industry, which is regarded as of "national interest" and hence entitled to protection and support under the terms of Decree No. 14,630/44, has induced manufacturers to plan the extension of existing installations in co-ordination with the projected installation of the Second Siderurgical Unit (the first is the blast furnace at Zapla, Jujuy, which produces 25,000 tons a year with charcoal) through the instrumentality of the Sociedad Mixta Siderurgica Argentina, consisting of representatives of the Directorate-General of Military Manufacturers and the principal steel producers. Although there is a contract for the acquisition of machinery, equipment and technical staff from a United States company (Armco Steel), currency difficulties have hitherto prevented, it is believed, the execution of this plan for the manufacture of 500,000 tons of steel, so important for the consolidation and extension of the heavy metallurgical industry. Although at first this plant would have to work exclusively with ores and coal imported from Chile, Brazil, the United States and elsewhere, it is reasonable to hope that with the expansion of the coal mines at Rio Turbio (Santa Cruz) and the discovery of important and rich deposits of iron ore on the Atlantic Coast at Rio Negro

(Sierras Grandes)



(Sierras Grandes), the country will at some time in the future become self-sufficient so far as steel is concerned.

Other branches in this group show severe decreases in the volume of production. The sheet metal works, which operate exclusively with imported raw material, have reduced production by some 35 per cent. The smelting of lead and tin ores, which had expanded between 1937 and 1944 to make up for imports, then fell by more than 25 per cent. Likewise, the activity of the light ironwork and metal industries was also less in 1949 than in the pre-war period. In this connexion, competition has arisen from structural carpentry.

In some branches of the metallurgical industry, production per worker has fallen (sheet metal works, 32 per cent; bolts and screws, 53 per cent; fixtures, 3 per cent; lead smelting, 14 per cent; and light ironwork, 23 per cent).

In other branches, on the other hand, increases have been recorded (copper casting and fabrication, 16 per cent; steel casting, 3 per cent; metal pipes, 3 per cent) (Table 23).

#### Vehicles and machinery

In addition to the manufacture of various machines and motors, this group includes shipyards, assembly of automobile engines and the manufacture of carriages, together with railway and tramway workshops and mechanical workshops in general.

For the group as a whole, production remained stationary until 1941. After that large increases took place, including an increase of as much as 70 per cent in 1947; but in the last two years a 50 per cent decline has occurred.

Table 23 Argentina: Industrial Development according to Groups of Industries

XIII. Metals

(excluding machinery)

Year	Workers employed		Annual Increase		Man - hours		Average annual increase %	1943 = 100	1937-39 = 100	Degree of effort 1943 = 100	1943 = 100	Output of labour Per worker employed	Wages per unit of production	
	1937-39 = 100	1943 = 100	Abso- lute	%	1943 = 100	1943 = 100								1937-39 = 100
a	b	c	d	e	f	g	h	i	j	k	l	m	n	
1937	47,331	94.9	...	...	...	...	100.9	...	...	...	...	106.3	...	92.7
1938	49,709	99.6	2,378	5.0	...	...	...	...	...	...	...	100.4	...	100.0
1939	52,637	105.5	2,928	5.9	...	...	99.1	...	...	...	...	93.9	...	107.5
1940	54,534	109.3	1,897	3.6	...	...	...	...	...	...	...	88.8	...	111.8
1941	59,101	118.5	4,567	8.4	...	...	95.1	...	...	...	...	80.3	...	129.1
1942	63,326	126.9	4,225	7.1	...	...	...	...	...	...	...	67.4	...	162.7
1943	66,102	132.5	2,776	4.4	100.0	100.0	75.8	...	...	...	...	57.2	100.0	203.3
1944	72,778	145.9	6,676	10.1	113.4	103.0	106.0	...	...	...	...	72.7	127.0	177.5
1945	78,331	157.0	5,553	7.6	115.6	97.6	100.6	...	...	...	...	64.1	111.9	214.9
1946	86,826	174.0	8,495	10.8	127.1	96.8	123.8	...	...	...	...	71.1	124.3	236.1
1947	90,163	180.7	3,337	3.8	132.8	97.4	136.8	...	...	...	...	75.7	132.3	303.4
1948	94,366	189.1	4,203	4.7	134.7	94.4	150.5	...	...	...	...	79.6	139.0	430.4
1949	92,312	185.1	-2,054	-2.2	132.0	94.5	152.6	...	...	...	...	82.4	144.0	551.9

/These sharp

These sharp variations are due particularly to the operations of automobile engine assembly plants. It is known that imports declined until they were almost eliminated in 1944-1945. When the war was over they were resumed, particularly in 1947 and early 1948, but in 1949 they again became almost insignificant, particularly so far as unassembled motor cars from the United States are concerned. In 1947, for example, the activity of these factories was greater than in 1937, and in 1949 it was 5 per cent greater than in 1947. Employment between 1947 and 1949 fell from 6,200 to 3,000 workers.

The manufacture of engines, motors and spare parts, excluding electrical machinery, has increased continuously since 1941, the number of people employed being doubled and production having increased five times. Considerable success has been achieved with certain types of widely used and relatively simple machines, such as some types of agricultural machinery, and looms. Imports will have considerable difficulty in ousting these products from the market. Other commendable efforts were made in the production of machinery to order and the completion of equipment or the production of entire plants, imported techniques and models being in general followed and used. Work has also been done on a series of machines for various industries, including, for example, wool- and cotton-spinning machines. Although technical conditions in some workshops have been excellent, the preference of the buyers has been for machinery bearing the trademarks of the old suppliers. Accordingly when the war ended, and it was possible again to import, production became stationary and would have declined had it not been for the great demand for replacements, which could not be completely satisfied when it became necessary once again in mid-1948 to restrict imports. From then on, the index shows further increases in production. The output of labour in the factories producing machinery has increased by almost five times as the result of the introduction of serial production and greater mechanization.

The few and small Argentine shipyards were considerably extended after 1941 to enable them to be used for building vessels of small or medium tonnage and for repairs. In 1947 the index of production was four times greater than before the war. Between then and 1949, it fell by about 40 per cent.

The output of the railway shops remained stable throughout the period, because in spite of the steadily growing need for repairs and the manufacture of replacements, supply difficulties acted as a brake. Between 1937-39 and

1948 production rose by about 16 per cent, and the number of persons employed by about 21 per cent. Thus, the output of labour fell by about 4 per cent (Table 24).

Table 24 Argentina: Industrial Development according to Groups of Industries

IV. Vehicles and machinery  
(including electrical machinery)

Years	Workers employed	Annual Increase %	Q U A N T U M		
			1937-39 = 100	Average annual increase %	Output per worker employed Number 1937-39 = 100
1937	52,786	94.2	...	...	105.8
1938	...	...	6.2	0.1	100.0
1939	59,303	105.8	5.8	0.1	94.6
1940	...	...	5.2	-1.1	87.2
1941	65,530	116.9	5.0	-1.3	83.5
1942	...	...	7.9	12.6	87.2
1943	75,874	135.3	7.3	11.3	90.4
1944	...	...	4.2	8.9	94.5
1945	...	...	4.1	4.8	95.2
1946	85,498	152.5	3.9	20.1	109.9
1947	...	...	6.8	70.5	175.5
1948	97,106	173.2	6.4	-20.3	131.5
1949	95,589	170.5	-1.6	-25.4	100.0

Source: Same as for preceding tables.

Electrical machinery, equipment and appliances

This group of industries, manufacturing the light elements so necessary for production and modern life, shows the greatest increase of all the industrial groups, with a production in 1949 exceeding that of 1937-39 by 160 per cent and that of 1943 by 175 per cent. After two years of great increases in production (1938 and 1939) and two more of relative stagnation, the industry passed through four years of continuous decline due to the shortage of raw materials and imports, particularly copper. Thus the quantum index, which had risen from 81 in 1937 (with 1937-39 = 100)

to 129 in 1939 and 126 in 1941, fell to 88 in 1945. When, however, imports of raw materials were resumed, this industry effectively competed with the imported products, and production rose to 257, that is to say to a level three times above that of 1945, without being affected by imports. In 1949 the increase was insignificant. The number of workers in the factories, which was very small in 1937 (4,600 persons), grew by 15 to 30 per cent annually until 1948, when it fell by 2.4 per cent. The index of degree of effort stood at 87.9 in 1949 as compared with 1943 = 100. The output of labour per worker employed fell by about 65 per cent between 1937-1939 and 1945, and after that rose by about 43 per cent. The index of output per man-hour has increased by about 12 per cent since 1943.

The indices and trends vary from branch to branch. The manufacture of miscellaneous electrical articles and appliances, which is the largest in the group in respect of the number of workers employed (15,000 out of 24,000), remained stationary up to 1945. When the difficulties of importing certain raw materials or parts of appliances (refrigerator compressors, for example) ceased, production increased by five times, output in 1949 being less than in 1948. Radio, which is a very active industry supplying practically all domestic requirements but depending for many of its needs on imports, suffered a fall in production after 1941, when difficulties arose with regard to imports from the United States. In 1945 production was some 75 per cent smaller than in 1941. The subsequent recovery made it possible to return to that peak in 1948 and 1949.

The building of electric motors began tentatively and advanced confidently until 1943, but then development stopped owing to the shortage of certain elements such as iron and silicon. After 1945, production increased by 75 per cent. It is probable that as the result of improvements in methods of production imports will in future be confined to high-power motors, and that therefore the serial manufacture of small motors for mass distribution will become firmly established, particularly with the spread of electrification, which is still undeveloped in Argentina, compared with other countries. The per capita production of electricity is today 240 as against 3,400 in Canada, 1,950 in the United States, 1,700 in Switzerland, 2,300 in Sweden, 1,500 in New Zealand, etc.

/Imports

Imports of accumulators, cells and batteries, light bulbs and valves have already stopped, the quality of the domestic product being satisfactory. The manufacture of cells has been declared an "industry in the national interest", and imports are restricted. Today almost ten times as many products are manufactured in the first sub-group as before the war and five times as many in the second sub-group (Table 25).

Table 25. Argentina: Argentine industrial development according to groups of industries

XV. Electrical machinery, equipment and appliances

Years	<u>Workers employed</u>		Annual increase %	<u>Q u a n t u m</u>		
	Number of workers	1937-39 = 100		1937-1939 = 100	Average annual increase %	Output per worker employed 1937-1939 =100
	a	b	d	o	o'	$p = \frac{o}{b}$
1937	4,675	92.3	...	80.9	...	87.6
1938	...	...	8.4	...	23.6	100.0
1939	5,458	107.7	7.7	119.1	19.1	110.6
1940	...	...	14.1	...	3.1	99.9
1941	6,999	138.1	12.4	126.5	3.0	91.6
1942	...	...	10.1	...	-12.6	72.7
1943	8,408	166.0	9.2	94.5	-14.5	56.9
1944	...	...	25.5	92.2	-2.4	44.3
1945	...	...	20.3	88.0	-4.6	35.1
1946	14,841	292.9	16.9	124.1	41.0	42.4
1947	...	...	31.5	183.3	47.7	47.6
1948	24,177	477.2	23.9	257.3	40.4	53.9
1949	23,601	465.9	-2.4	260.8	1.4	60.0

Source: Same as for preceding tables.

Electricity and gas

In the industrial statistics, these two industries are kept apart from the extractive and manufacturing industries. The production of gas<sup>distilled</sup> from coal or of supergas is of little importance as compared with that of electricity, whether in respect of the numbers employed or the value of the product. Production of electricity has increased steeply and without interruption, doubling in the course of twelve years. Since the number of workers has tripled, this shows a 50 per cent reduction in the productivity of the workers.

The electric power production companies have almost doubled output (76 per cent increase), with an almost continuous and even increase owing to the growth of the urban population and its improved standard of living and the expansion of commercial and industrial activities. Demand soon exceeded the capacity of the plants, which could not acquire more machinery or replace outworn machinery after the United States had entered the war. When the war ended, it was hoped that this disequilibrium would be happily adjusted, but in Europe the manufacturers had committed their resources to reconstruction and governments were slow to permit sales to other countries. Neither the big nor the small works have been able to replace their machinery, and in many parts of the country there have been failures of current or even more serious defects in the regularity of supply. Restrictions on the use of electricity began in 1942, when fuel was short, and are still continuing with varying degrees of severity, depending on demand, the difficulty of obtaining supplies of fuel and the success achieved in extending equipment. The disequilibrium reappeared in 1950, and it is not yet possible to foresee when new equipment will be available. A good deal of such equipment has been ordered abroad by various undertakings, but there are currency difficulties involved (Table 26).

Table 26 Argentina: Argentine industrial development according to groups of industries

XVI. Electricity and gas

Years	<u>Workers employed</u>		Annual Increase %	<u>Q u a n t u m</u>		
	Number of workers	1937-39 = 100		1937-39 = 100	Average annual increase %	Output per worker employed $\frac{o}{b}$ 1937-39 = 100
	a	b	d	o	o'	p = $\frac{o}{b}$
1937	11,134	94.9	...	94.4	...	99.5
1938	...	...	5.4	...	5.9	100.0
1939	12,331	105.1	5.1	105.6	5.6	100.5
1940	...	...	2.0	...	3.7	102.1
1941	12,828	109.4	2.0	113.4	3.6	103.7
1942	...	...	5.2	...	5.3	103.7
1943	14,175	120.8	5.0	125.5	5.1	103.9
1944	...	...	1.4	133.8	6.6	109.2
1945	...	...	1.4	129.9	-2.9	104.6
1946	14,763	125.9	1.3	142.7	9.9	113.3
1947	...	...	-1.1	156.4	9.6	125.6
1948	14,436	123.0	-1.1	170.5	9.0	138.6
1949	15,566	132.6	0.8	176.5	3.5	133.1

Source: Same as for preceding tables.

An attempt has been made by rationalizing consumption to level out the load curve and to increase the coefficient of utilization, so that with an 11 per cent increase in the power of the prime mover in the electric power stations between 1937 and 1946, it has been possible to achieve an increase of 50 per cent in production, and the power installed by industry using bought current has increased by some 83 per cent.

The difficulty of obtaining connexions has induced many industrial consumers to produce their own current. Thus, while, as has been said, the  
/prime movers



prime movers in the electric power stations increased their capacity by 11 per cent between 1937 and 1946, the power of the prime movers in the rest of industry increased by about 57 per cent and the power of the electric motors using their own current increased by about 15 per cent (Table 27).

Table 27 Argentina: Power installed and production of electricity

Years	Power installed (millions of horse power)				Production of electricity 1943 = 100
	Power stations	Prime movers used in industry	Electric motors purchased current	Electric motors - own current	
1937	1,620	530	560	270	75
1939	1,660	630	650	350	84
1943	1,780	790	850	440	100
1946	1,800	830	1,020	500	114

Source: Industrial censuses.

Magnitude of changes in production between 1939 and 1949, arranged according to causes

I. Increases of more than 300 per cent (8 groups)

(a) Replacement of imports (domestic raw materials)

Smelting of ores

Accumulators and batteries

(b) Replacement of imports (domestic and imported raw materials)

Machinery and electric motors

Electric lamps

Electric motors

(c) Increased consumption

Pressed bricks

Industrial dyeing

/ II. Increases

II. Increases of 200 to 300 per cent (10 groups)

- (a) Replacement of imports (domestic raw materials)
  - Preserved fish
  - Buttons
- (b) Replacement of imports (domestic and imported raw materials)
  - Iron pipes
  - Electric appliances
  - Miscellaneous iron articles
  - Rayon
- (c) Industries receiving protection with a view to replacing imports
  - Shipyards
- (d) Increased consumption or replacements
  - Cement and fibre cement goods
  - Garments (clothiers and drapers)
- (e) Increase in exports
  - Oils

III. Increases of 100 to 200 per cent (14 groups)

- (a) Replacement of imports (domestic raw materials)
  - Yarns and fabrics
  - Chemical substances and products
  - Ceramics and pottery
- (b) Replacement of imports (domestic and imported raw materials)
  - Copper and brass casting and fabricating
  - Iron smelting
- (c) Increased consumption or replacements
  - Aerated waters
  - Beer
  - Electricity
  - Glass
  - Furniture
  - Liquid gas

/(d) Increase

## (d) Increase in exports

Preserved meats

Leather goods

IV. Increases of 50 to 100 per cent (21 groups)

## (a) Replacement of imports (domestic raw materials)

Tobacco

Knitwear

Woodpulp

Paper

Paper goods

Galvanization

Lead smelting

## (b) Replacement of imports (domestic or imported raw materials)

Silk fabrics

Bolts and screws

## (c) Increased consumption or replacements

Common salt

Chocolate

Alimentary paste

Biscuits

Malt

Leatner footwear

Petroleum refining

Ice

Gas

## (d) Increase n exports

Printing

Washing soap

Footwear

V. Increases of up to 50 per cent (17 groups)

## (a) Difficulties of importing equipment

Petroleum

Cement

/(b) Accompanying

(b) Accompanying increase in population

Rice

Sugar

Flour

Preserved fruit

Structural carpentry

Paint

Rubber footwear

Tyres

Smelting of lead and tin ores

(c) Shortage of imports

Railway workshops

Radio apparatus

(d) Price controls

Rope-soled shoes

Matches

(e) Difficulties of connected industries

Printing ink

Mosaics

VI. Decreases (14 items)

(a) Shortage of imports

Burlap bags

Hosiery

Braids and ropes

Boxes

Barrels

Newspapers and magazines

Sheet metal

Light ironwork and metal building parts etc.

Assembly of automobiles

(b) Decreases in consumption

Hats

/(c) Increased

- (c) Increased cost of labour
  - Garment-making in department stores
- (d) Decrease in exports
  - Metalliferous ores
  - Refrigerators
  - Tanning materials

#### The equipment of industry

In a country where labour is in short supply it is necessary above all that the people's level of mechanization should be raised. Although this is a premise which applies to all social groups, it is more urgent in the new, under-populated countries which are in process of integrating their economies, for a state of full employment is soon reached and further demands by the workers lead only to decreased output, inflation, and dislocation.

The installed motive power per worker in Argentine industry is not half that of the United States, Canada, Sweden or Finland and is very much lower than that of Australia, New Zealand or the Union of South Africa, countries at an analogous stage of economic development. Excluding power stations, the capacity of prime movers and electric motors running on purchased current amounted in 1939 to 1,190,000 h.p. in factories with five or more workers, that is to say 2.4 h.p. per worker and 2.1 in 1943. This process continued until 1946, when imports were resumed; that is to say that in these years the processed mechanization was retarded. Increased production was obtained through the better utilization of machinery by increasing the number of shifts (see Table 28).

Table 28 Argentina: The mechanization of manufacturing industry <sup>a/</sup>

	1937	1939	1943	1946 <sup>b/</sup>
<b>INSTALLED POWER</b>				
Prime movers				
thousands of h.p.	472	549	658	704
Electric motors				
using current	554	641	840	1,014
Total thousands of h.p.	1,026	1,190	1,498	1,718
1937-39 = 100	93	107	135	155
<b>VOLUME OF PRODUCTION</b>				
1937-1939 = 100	96	104	116	148
Per h.p. installed,				
1937-39 = 100	103	97	86	96
<b>NUMBER OF FACTORIES</b>				
Number	45,300	49,100	59,800	84,900
h.p. per factory	23	24	25	20
<b>WORKERS EMPLOYED</b>				
Thousands	471	506	719	899
h.p. per worker	2.2	2.4	2.1	1.9

<sup>a/</sup> Excluding the group of extractive industries and electricity and gas.

IMPORTANT NOTE: <sup>b/</sup> Figures subject to qualification until further notice.

The same happened in the case of other industrial equipment. During the war years industrial equipment suffered and although the domestic engineering industry worked intensively and resolved many problems, its success was rather in maintaining the productivity of existing machines than in providing new ones. Nevertheless, not only were machines manufactured to order, but the serial production and assembly of certain types was begun. Thus the manufacture of textile machinery, machine tools and electric motors was begun and is still continuing. Between 1941 and 1945 the domestic  
/production

production of machinery almost quadrupled. The same is true of electric motors. Since then, in spite of imports of machines, which had a priority for the purposes of the foreign exchange regulations, the increase in domestic production continued, the production of industrial machinery in general rising by some 20 per cent between 1945 and 1949, and that of electric motors rising by 76 per cent. In short, production of industrial machinery and electric motors was greater in 1949 than in 1937-39 by 35 per cent and 2,470 per cent respectively.

Meanwhile imports fell by about 90 per cent, and then rose to more than two or three times their pre-war level in 1947 and 1948. In 1949 they remained stationary at 10 per cent above that level. In 1950 the 1949 level was maintained.

To sum up, total supplies of machinery and motors have been about four times greater since 1943 than before the war, and the domestic industry has played a growing and important part in providing them (see Table 29).

The share taken by domestic industry in the production of machinery does not diminish the importance of imports so far as quality and specialized types are concerned; and however much the domestic industry may progress, imports will always be indispensable. On the contrary, the greater the industrialization, the greater will be the need for specialized high-performance machinery.

There are many industries which suffer from a shortage of machinery, principally those industries where mechanization is highly advanced and which need very specialized types of machinery, the technical standards required in the production of which the Argentine workshops would find it difficult to meet.

Mechanization is the only effective means of strengthening industry in the face of foreign competition and increasing the productivity of the worker to the general benefit. This gradual transformation towards a greater utilization of mechanical power proceeded steadily until 1939, but was then considerably retarded owing to the difficulty of obtaining imports.

Table 29 Argentina: Imports of machinery

Tariff values in millions of pesos

Years	Imports of industrial		Total machinery	
	machinery and motors	1937 = 100	and motors of all kinds	1937 = 100
1937	46.8	100.0	54.5	100.0
1938	45.1	96.4	51.5	94.5
1939	29.7	63.5	34.0	62.4
1940	25.5	54.5	30.7	56.3
1941	18.5	39.5	21.3	39.1
1942	14.0	29.9	16.2	29.7
1943	5.6	12.0	6.8	12.5
1944	4.5	9.6	5.1	9.4
1945	6.5	13.9	7.4	13.6
1946	28.5	60.9	34.3	62.9
1947	97.2	207.7	117.4	215.4
1948	151.4	323.5	165.7	304.0
1949	89.9	192.1	104.8	192.3
1950 <sup>a/</sup>	38.9	83.1	47.0	86.2

Source: Anuarios del Comercio Exterior and Sintesis Estadistica Mensual de la Republica Argentina

a/ First six months.



Taking into consideration the manufacturing industries alone, that is to say, excluding the extractive and electricity and gas industries, we may conclude from the figures provided by the 1946 census that the increase in the power installed in the factories, whether supplied by prime movers or generators operating on current bought from the power stations, increased from 1,026,000 h.p. in 1937 to 1,718,000 in 1946. Thus the index number based on 1937-39 = 100 rose to 155, while the volume of production in the whole of this industry rose during the same period by about 48 per cent, that is to say, by rather less. Accordingly there has been a 4 per cent decrease in productivity per h.p. installed. That means that the mechanization of production declined considerably up to 1943, and then, although there was an improvement, failed to regain the pre-war level. This is due to the fact that the country's productive efforts had to be based on industries where mechanization was not up to the previous standard, at the expense of the output of labour, the volume of goods produced and economy of operation.

Another indication of this reduced mechanization is that the number of h.p. per factory, which was about 23 in 1937, rose to 25 in 1943; but then fell to 20 in 1946, and the number of h.p. per worker employed fell from 2.2 to 1.9 in the period under consideration.

This is due to the fact that much equipment has been imported since 1946, particularly up to the middle of 1948 and then at a reduced rate, and though the volume of production and employment for 1949 and 1950 increased slowly, better indices of production are recorded. This would appear to be demonstrated by the increased productivity per man-hour in almost all groups and branches of industry.

## CHAPTER II THE FINANCIAL STRUCTURE OF INDUSTRY

### Introduction

Until 1944, industry was strengthening its financial structure through being able to profit by the shortage of goods. Reserves for depreciation as permitted by the financial regulations were sufficient and working capital was expanding only in keeping with the expansion of production. As a consequence, entrepreneurs made great improvements and extensions, though they also invested funds outside industry.

But, inflation, which was very gradual at first, had a beneficial effect on industry, arousing optimism and spurring activity. The rapid spread of inflation brought with it the usual social and economic drawbacks, and in addition caused a radical change in the financial structure of industrial undertakings. Within a few years, these undertakings -- large portions of their assets being frozen, their selling prices being wholly or partly controlled, and being subject to restrictive regulations relating to depreciation and dividends -- witnessed changes in the structure of their balance sheets and in the relationships of their items, with a subsequent weakening of soundness. Most companies over-decapitalized themselves by distributing dividends out of profits which were mere book profits and not real profits.

These events are likely to be so important in the fairly near future that the process deserves study in some detail. This is impossible on the basis of statistics covering all undertakings, both great and small. Only companies whose shares are quoted on the Stock Exchange publish balance sheets. As these are the leading companies it would be a mistake to measure the whole of industry by an analysis of these leaders of industry.

To meet this difficulty, a small sample has been taken, specially for this study, among both small and large industrial companies. The sample covers only seventy-one undertakings and hence the conclusions of the analysis are not absolutely valid for each industrial group or even for industry as a whole, but they are very useful as evidence of trends and problems, which vary according to the size of the undertakings, their type of production and their immunity (or otherwise) from price control.

/As only

As only a small number of undertakings has been considered, the results are probably slightly distorted by the problems peculiar to some of them, but that was unavoidable in this first study.

For the purpose of gauging the direction and intensity of the change in balance sheets, those relating to the last three financial years known are compared with the balance sheets established in the twelve months April 1943 to March 1944. Unfortunately, owing to the time-lag between the close of the financial year -- which in the case of most companies ends in June -- and the annual general meetings, balances struck after that date could not be included for study.

The analysis covers the following data and relationships:

Proportions of fixed assets, current assets, inventories, liquid assets, receivables and the relationships of these inter se. Their manner of increase is determined, together with method of distribution according to liquidity and economic function.

Proportions of liability items, of capital to creditors. The size of reserves and effects of bank credit restrictions in force since 1949. Depreciation, conditions governing depreciation, amount allowable as depreciation compared with original value.

Profits and their ratio to capital and reserves.

The real value of profits (ratio to currency depreciation and ratio of profits to the increases necessitated by the inflation in inventories and in reserves for replacement purposes).

The analysis covers the seventy-one undertakings arranged below according to product. Those manufacturing durable and semi-durable goods (19 in all) cover the following branches: forestry, mining, metallurgy, machinery, stone, glass and ~~ceramics~~, and construction. The remainder (51) are manufacturers of non-durable goods. The total includes an electricity plant which cannot be classified strictly as a manufacturing industry. All these are joint stock companies formed before 1943.

/1. FOODSTUFFS AND

		<u>Capital</u>
		(In millions of Argentine pesos)
1.	<u>FOODSTUFFS AND BEVERAGES</u> (17 undertakings)	
	(a) Oils (2 undertakings)	10.7
	(b) Rice (2 undertakings)	12.1
	(c) Sugar (1 undertaking)	61.3
	(d) Caramels and small biscuits (1 undertaking)	21.7
	(e) Alcohol distilleries (1 undertaking)	15.1
	(f) Meat packing plants (2 undertakings)	158.4
	(g) Flour (1 undertaking)	70.1
	(h) Dairies (3 undertakings)	61.9
	(i) Wine (3 undertakings)	80.9
	(j) Sundries (1 undertaking)	2.9
2.	<u>TOBACCO</u> (4 undertakings)	83.0
3.	<u>TEXTILES</u> (7 undertakings)	
	(a) Cotton (2 undertakings)	27.8
	(b) Wool (2 undertakings)	56.5
	(c) Various (3 undertakings)	36.3
4.	<u>PAPER</u> (4 undertakings)	190.4
5.	<u>PRINTING</u> (3 undertakings)	26.9
6.	<u>LEATHER</u> (3 undertakings)	16.9
7.	<u>RUBBER</u> (3 undertakings)	28.1
8.	<u>CHEMICAL PRODUCTS</u> (7 undertakings)	
	(a) Paints (2 undertakings)	8.7
	(b) Pharmaceutical products (2 undertakings)	7.1
	(c) Chemical products (2 undertakings)	24.4
	(d) Dyes and dry-cleaning materials (1 undertaking)	0.5
9.	<u>FORESTRY</u> (3 undertakings)	3.5
10.	<u>PETROLEUM</u> (3 undertakings)	66.3
11.	<u>MINING</u> (2 undertakings)	43.8
12.	<u>METALLURGY AND MACHINERY</u> (7 undertakings)	
	(a) Metallurgy (4 undertakings)	103.3
	(b) Machinery (2 undertakings)	87.8
	(c) Workshops (1 undertaking)	18.2
13.	<u>STONE, GLASS AND CERAMICS</u> (5 undertakings)	77.6
14.	<u>CONSTRUCTION</u> (2 undertakings)	5.3
15.	<u>ELECTRICITY</u> (1 undertaking)	111.5

/These seventy-one

These seventy-one undertakings have an aggregate capital of 1,350 million, of which 310 million is accounted for by the nineteen manufacturers of durable and semi-durable goods, 940 million by the producers of non-durable goods and 100 million by the electricity plant included in the sample. The sample is significant because the undertakings covered play an important part in economic and financial affairs, and it certainly shows how events affect the larger undertakings, even though some small and medium-sized undertakings are also included. The assets of the undertakings sampled were found to amount to 2,800 million pesos.

#### Evolution of assets

During the six financial years considered the seventy-one industrial undertakings doubled their assets. Half of this increase took place in the first four years (up to 1947-48) and the remainder in the last two. Nevertheless, the rate of increase has not always been upward; rather a decline is noted during the last two years. There is little doubt that this decline is more marked in the financial years completed after March 1950, as a result of a falling off in production.

Table 30 Argentina: Balance sheets of seventy-one companies<sup>a/</sup>  
millions of Argentine pesos

ITEMS	Financial years ending between 1 April and 30 March of the years				Percentage of annual increase	
	1943-44	1947-48	1948-49	1949-50	1948-49 1947-48	1949-50 1948-49
<u>ASSETS</u>	1,372	2,038	2,403	2,806	17.8	16.8
<u>Fixed assets</u>	636	796	907	1,765	13.9	17.4
Original cost	934	1,202	1,341	1,530	11.6	14.1
Depreciation	298	406	434	465	6.9	7.1
<u>Current assets</u>	735	1,224	1,496	1,741	22.2	16.4
Inventories	417	698	816	918	16.9	12.5
Liquid assets	69	106	145	165	36.8	13.8
Receivables	248	438	535	658	22.1	23.0
<u>LIABILITIES</u>						
<u>Capital and reserves</u>	918	1,219	1,370	1,523	12.4	11.2
Capital	804	1,064	1,224	1,357	15.0	10.9
Reserves	114	155	146	166	-6.0	13.7
Creditors	231	366	493	559	34.6	13.4
Dividends	79	168	168	179	--	6.5

Source: Bulletin of Buenos Aires Stock Exchange.

a/ Includes one electricity plant.

Table 30A Argentina: Balance sheets of seventy-one companies<sup>a/</sup>

ITEMS	Indices			
	Financial years ending between 1 April and 30 March of the years			
	1943-44	1947-48	1948-49	1949-50
<u>ASSETS</u>	100.0	148.5	175.1	204.5
<u>Fixed assets</u>	100.0	125.2	142.6	167.5
Original cost	100.0	128.7	143.6	163.8
Depreciation	100.0	136.2	145.6	156.0
<u>Current assets</u>	100.0	166.5	203.5	236.9
Inventories	100.0	167.4	195.7	220.1
Liquid assets	100.0	153.6	210.1	239.1
Receivables	100.0	176.6	215.7	265.3
<u>LIABILITIES</u>				
<u>Capital and reserves</u>	100.0	132.8	149.2	165.9
Capital	100.0	132.3	152.2	168.8
Reserves	100.0	136.0	128.1	145.6
Creditors	100.0	158.4	213.4	242.0
Dividends	100.0	212.7	212.7	226.6

Source: Bulletin of Buenos Aires Stock Exchange.

a/ Includes one electricity plant.

However, not all the items on the assets side evolved in the same manner. The index number for fixed assets for the last financial year, compared with the first, was only 167.5, whereas for the current assets as a whole (inventories, liquid assets, receivables) the index number rose to 237. This is an indication of the principal feature of the evolution which took place in the financial structure of industrial companies, and also undoubtedly of all industrial undertakings. At the same time as an increase in fixed assets due to the expansion of undertakings or replacement of machinery and tools by new, more expensive equipment, there is a much greater increase in the monetary requirements of evolution, as a result of the constant rise in prices. Moreover, among the current assets, receivables show the greatest increase, with an index of 265, as against 239 of liquid assets and 220 for inventories; this is a cogent illustration

/of the need

of the need to expand credit. This difference between the three items under current assets was more marked in the last financial year, when the effects of bank credit restrictions began to be felt (see Table 30).

It is interesting to note how the progress of industrial activity and of inflation affect the transformation of assets. If the figures for the last three financial years are compared, it will be seen that the annual increase has varied a great deal from item to item (Table 31). Fixed assets, which had increased by 13 per cent between the financial years ending in 1947-48 and 1948-49, rose by 17.4 per cent in the following year, that is, at a higher rate. The rate of increase of current assets (which had always been sharper than that of fixed assets, since it reached 22.2 per cent in the penultimate financial year), declined in the final year to 16.4 per cent, that is, less than 17.4 per cent increase of fixed assets. This was due to the fact that while receivables continued to increase rapidly (22 and 23 per cent a year), the proportion of increase of inventories and liquid assets was very considerably reduced. This last item includes holdings of securities in which the reserves accumulated in previous years had been invested.

This varied evolution, clearly illustrated by the tables, is responsible for the structural modification of assets. Fixed assets of the enterprises as a whole fell from 46.4 per cent of the total, to 39.0 per cent in 1947, 37.8 per cent in 1948 and 38.0 per cent in 1949. Current assets, on the other hand, rose from 43.6 per cent to 62 per cent. According to the figures for the last financial year, inventories represented 33 per cent of total assets, liquid assets 6 per cent and receivables 23 per cent.

/Table 31



The tables provide further proof of the importance acquired, within the industrial framework of Argentina, by industries producing durable or semi-durable goods, and particularly capital goods. The assets of this group have increased two and a half times between 1944 and 1950, as against only twice for the group of firms producing non-durable or consumer goods. This greater proportionate increase is due exclusively to the trebling of current assets, since fixed assets increase in the same proportion for both types of enterprises. More specifically, it is due to the expansion of credit operations, since receivables quadrupled during the period, while inventories only trebled and liquid assets rose by 71 per cent. The 18 per cent decline in liquid assets in the last financial year, in this group of undertakings, clearly shows the effect of credit restrictions and tight money conditions (Table 32).

Table 32 Argentina: Balance sheets of nineteen companies manufacturing durable and semi-durable goods  
(millions of Argentine pesos)

ITEMS	Financial years ending between 1 April and 30 March of the years				Percentage of annual increase	
	1943-44	1947-48	1948-49	1949-50	1948-49 1947-48	1949-50 1948-49
	<u>ASSETS</u>	243	382	526	618	37.7
<u>Fixed assets</u>	109	139	164	192	18.0	17.1
Original cost	189	253	288	326	13.8	13.1
Depreciation	80	114	124	134	8.8	8.1
<u>Current assets</u>	134	243	362	425	49.0	17.4
Inventories	79	146	211	240	44.5	13.7
Liquid assets	21	25	44	36	76.0	-18.2
Receivables	35	72	107	149	48.6	39.2
<u>LIABILITIES</u>						
<u>Capital and reserves</u>	185	258	274	341	6.2	24.4
Capital	165	239	253	315	5.9	24.5
Reserves	20	19	21	26	10.5	23.8
Creditors	29	58	126	131	117.0	4.0
Dividends	11	26	42	50	61.5	19.0

Source: Bulletin of Buenos Aires Stock Exchange.

/The asset

Table 31 Argentina: Structure of assets  
Proportion of each item to the total

Financial years ending between	FIXED ASSETS						CURRENT ASSETS									
	Inventories		Liquid assets		Receivables		Total		Non-		Non-					
	Dura-	Non-	Dura-	Non-	Dura-	Non-	Dura-	Non-	Dura-	Non-	Dura-	Non-				
1-4 of	30-3	a/	b/	c/	a/	b/	c/	a/	b/	c/	a/	b/	c/			
1943	1944	44.7	38.9	46.4	32.5	34.9	30.4	8.5	4.8	5.1	14.3	21.4	13.1	55.3	61.1	53.6
1947	1948	36.4	33.2	39.0	38.3	37.7	34.2	6.4	5.2	5.2	18.9	23.9	21.6	63.6	66.8	61.0
1943	1949	31.1	33.8	37.3	40.2	35.7	33.9	8.3	5.9	6.0	20.4	24.6	22.3	68.9	66.2	62.2
1949	1950	31.1	34.5	38.0	38.8	34.3	32.7	5.9	6.5	5.9	24.2	24.7	23.4	68.9	65.5	62.0

Source: Bulletin of the Buenos Aires Stock Exchange.

a/ Producers of durable and semi-durable goods.

b/ Producers of non-durable goods.

c/ Includes electricity.

The asset items of the undertakings manufacturing non-durable goods show a slower and more even evolution (Table 33). Accordingly, the structure of the assets side of the balance sheet relating to the last financial year is very similar to that of the balance sheet of the first financial year; by contrast a radical change occurred in the case of the durable goods industries, whose combined balance sheets show a decline in fixed assets from 44.7 to 31.1 per cent in six years and from 8.5 to 5.9 per cent in liquid assets, whilst the proportion of inventories rose from 32.5 to 38.8 per cent and receivables from 14.3 to 24.2 per cent.

The two groups of undertakings differ clearly in the development of their asset items in the last financial year. Producers of durable goods experienced a decline in the rate of expansion in relation to previous years, principally as regards current assets, which only increased by 17 per cent as against 49 per cent during the previous financial year. This differs from the experience of manufacturers of consumer and non-durable goods, in whose case the rate of expansion rose for almost all items, including fixed assets.

/Table 33

Table 33. Argentina: Balance sheets of fifty-one companies manufacturing non-durable goods  
( millions of Argentine pesos )

ITEMS	Financial years ending between 1 April and 30 March of the years				Percentage of annual increase	
	1943-44	1947-48	1948-49	1949-50	1948-49 1947-48	1949-50 1948-49
	<u>ASSETS</u>	930	1,419	1,626	1,906	12.8
<u>Fixed assets</u>	362	472	550	659	16.5	19.8
Original cost	578	761	858	986	12.7	14.9
Depreciation	216	289	308	327	6.6	6.2
<u>Current assets</u>	568	947	1,076	1,247	13.6	15.9
Inventories	325	535	580	653	8.4	12.6
Liquid assets	44	73	96	124	31.5	29.1
Receivables	199	339	400	470	18.0	17.5
<u>LIABILITIES</u>						
<u>Capital and reserves</u>	623	845	979	1,071	15.9	9.4
Capital	539	725	871	942	20.1	10.8
Reserves	84	120	108	129	-10.0	19.4
Creditors	199	303	355	401	17.1	13.0
Dividends	61	134	119	121	-11.1	1.7

Source: Bulletin of Buenos Aires Stock Exchange.

The proportion of fixed assets has increased in textile, rubber and construction enterprises. Inventories show a tendency to decline in the tobacco, paper, rubber, forestry, mining and construction industries.

/Table 34.

Table 34 Argentina: Structure of Assets  
Percentage proportion of each item to the total

Groups	Fixed assets				Inventories			
	1943/44	1947/48	1948/49	1949/50	1943/44	1947/48	1948/49	1949/50
Foodstuffs and beverages	40.6	32.0	33.4	32.3	37.1	39.5	38.4	39.6
Tobacco	25.4	23.1	23.1	24.8	46.5	49.1	47.3	44.2
Textiles	25.4	24.7	26.1	28.6	42.7	52.3	49.9	45.3
Paper	59.5	52.7	52.4	57.8	21.0	18.9	20.8	17.8
Printing	27.8	18.9	14.0	20.2	39.9	43.4	42.3	41.6
Leather	31.9	21.1	21.2	22.7	40.9	55.4	53.8	47.7
Rubber	16.9	17.1	16.6	18.0	22.9	36.7	24.5	17.1
Chemical Products	39.7	24.6	31.0	29.6	37.5	47.4	38.7	33.6
Forestry	50.0	42.7	35.2	27.8	35.5	41.5	45.4	35.0
Petroleum (extraction)	57.1	64.7	57.1	50.8	11.3	2.6	3.2	3.7
Mining	62.8	56.7	57.3	57.4	26.7	31.8	23.2	22.7
Metallurgy and machinery	28.2	23.4	19.7	22.4	39.3	45.0	48.0	47.1
Stone, glass and ceramics	61.2	54.0	50.6	44.8	25.7	28.3	27.8	26.9
Construction undertakings	17.8	22.1	34.7	23.0	23.5	14.0	17.2	12.2
Electricity plants	83.4	78.0	77.1	75.6	6.8	6.8	9.7	9.1

Groups	Liquid assets				Receivables			
	1943/44	1947/48	1948/49	1949/50	1943/44	1947/48	1948/49	1949/50
Foodstuffs and beverages	2.8	5.0	5.2	6.2	19.5	23.5	23.0	21.9
Tobacco	3.7	4.1	3.6	3.1	24.4	23.7	26.0	27.9
Textiles	9.1	4.0	4.1	5.2	22.8	19.0	19.9	20.9
Paper	2.1	4.8	6.9	6.0	17.4	23.6	19.9	18.4
Printing	5.0	2.1	4.5	3.6	27.3	35.6	39.2	34.6
Leather	8.0	3.5	5.5	6.6	19.2	20.0	19.5	23.0
Rubber	4.3	6.0	8.6	15.8	55.9	40.2	52.3	49.1
Chemical Products	7.0	4.8	5.0	9.2	15.8	23.2	25.3	22.6
Forestry	8.8	5.9	7.2	4.6	3.7	9.9	12.2	32.6
Petroleum (extraction)	15.1	12.1	16.9	6.6	16.5	20.6	22.8	39.4
Mining	9.2	7.5	15.9	15.3	1.2	3.9	3.6	4.6
Metallurgy and machinery	11.6	6.9	7.9	2.9	20.9	24.7	24.3	27.6
Stone, glass and ceramics	2.9	4.9	6.2	10.1	10.2	12.8	15.4	18.2
Construction undertakings	4.4	1.8	2.7	3.8	54.3	62.1	45.4	61.0
Electricity plants	2.2	3.6	2.0	1.7	7.6	11.6	11.2	13.6

Source: Bulletin of the Buenos Aires Stock Exchange.

/Structure of

Structure of Liabilities

In the last financial year capital and reserves of the seventy undertakings amounted to 1,523 million pesos, that is, 65.9 per cent more than six years previously, though the figure is less than 104.5 per cent increase in total assets. However, it implies an expansion similar to that of the fixed assets (67.5 per cent). As in the case of assets, the liabilities side shows a substantial change during the six years under review, since as against the above increase in capital and reserves, the item "creditors" increased by 142 per cent, an increase parallel to the 137 per cent rise in receivables.

Accordingly, the ratio of the creditors item to the total for capital and reserves rose from 25 per cent in 1943-44 to 36.6 per cent in 1949-50. This trend was very marked until 1948-49, the ratio remaining stationary thereafter.

In the case of manufacturers of durable goods, the increase in the creditors item was so sharp (4.3 times) until 1948-49, that the ratio of this item to capital rose from 16 to 46 per cent. However, in the last financial year this figure retreated to 38.6 per cent, the reason being that, although creditors continued to expand -- admittedly less intensively than in previous years (4 per cent instead of 17 per cent) -- capital formation proceeded at a much higher rate (24 as against 6 per cent) for the purpose of increasing credit (receivables) to replace bank credit, which was already contracting through regulations introduced in October 1948.

Table 35 Argentina: Structure of Liabilities

Financial years ending between		Percentage ratio of creditors to capital and reserves		
1-4	30-3	Durable goods a/	Non-durable goods b/	Total c/
1943	1944	15.7	31.9	25.1
1947	1948	22.4	36.9	30.1
1948	1949	46.0	36.3	36.0
1949	1950	38.6	37.4	36.6

Source: Bulletin of the Buenos Aires Stock Exchange.

a/ Producers of durable and semi-durable goods

b/ Producers of non-durable goods

c/ Includes electricity

Few variations are noted in the case of producers of non-durable goods, both items (creditors and capital) increasing less than and at a rate similar to that noted in the case of manufacturers of durable goods.

All groups of industry, with the exception of paper, show increases in the ratio of creditors, that is, commercial and banking debts, to capital.

Table 36 Argentina: Structure of liabilities  
Percentage ratio of creditors to capital and reserves

GROUPS	1943/44	1947/48	1948/49	1949/50
Foodstuffs and beverages	46.4	47.6	47.8	49.0
Tobacco	42.6	46.9	52.4	57.5
Textiles	17.2	23.6	30.9	26.5
Paper	11.9	15.4	5.5	9.3
Printing	31.7	34.6	29.7	41.4
Leather	18.4	44.7	66.6	81.6
Rubber	1.7	25.9	43.6	81.4
Chemical products	14.2	19.4	25.5	21.8
Forestry	29.3	46.2	64.5	51.8
Petroleum (extraction)	6.5	10.4	8.8	7.4
Mining	4.9	6.1	4.2	12.8
Metallurgy and machinery	24.1	30.9	72.9	42.2
Stones, glass and ceramics	12.7	15.8	24.6	29.8
Construction enterprises	0.5	22.6	122.3	207.9
Electricity plants	2.5	4.2	10.4	24.2

Source: Bulletin of the Buenos Aires Stock Exchange.

Particularly notable are the variations occurring in rubber, metallurgy, stone, glass and ceramics, construction enterprises and electricity plants. This increase in creditors is explained by the policy of the undertakings in question to obtain as much credit as possible for the following reasons:

- (a) during inflation it is an advantage to be a debtor;
- (b) the necessity to replace unobtainable bank credit;
- (c) higher inventories since the renewal of the import trade;
- (d) financial difficulties are making themselves felt more acutely and the payment of debts is delayed.

/Liquidity indices

Liquidity indices

Liquidity indices, both general (ratio of current assets to creditors) and immediate (ratio of receivables to creditors) have suffered little variation in the group of undertakings as a whole (see Table 37).

Table 37. Argentina: Liquidity indices

Financial years ending between		General liquidity Current assets Creditors			Immediate liquidity Receivables Creditors		
1-4 of	30-3 of	Durable a/	Non-durable b/	Total c/	Durable a/	Non-durable b/	Total c/
1943	1944	4.6	2.9	3.2	1.2	1.0	1.1
1947	1948	4.2	3.1	3.3	1.2	1.1	1.2
1948	1949	2.9	3.0	3.0	0.9	1.2	1.1
1949	1950	3.2	3.1	3.1	1.1	1.2	1.2

a/ Producers of durable and semi-durable goods.

b/ Producers of non-durable goods.

c/ Includes electricity.

A more detailed analysis, however, shows a considerable decline in indices of producers of durable goods, particularly when the 1948-49 financial year is compared with 1947-48.

This is due to the fact that the item "creditors" was very low during the years of great activity and good profits. This liability item doubled in the case of industries manufacturing durable goods.

The liquidity index of factories producing rubber goods is particularly noteworthy during the financial year ended in 1943-44 because of an almost complete absence of creditors. This was the year of most severely restricted operations on the part of these companies through shortage of raw materials, and they had consequently eliminated liabilities (Table 38).



Table 38 Argentina: Liquidity indices according to groups of industries

Groups	General liquidity Current assets				Immediate liquidity Receivables			
	Creditors				Creditors			
	1943/44	1947/48	1948/49	1949/50	1943/44	1947/48	1948/49	1949/50
Foodstuffs and beverages	2.2	2.6	2.4	2.6	0.7	0.9	0.8	0.9
Tobacco	2.2	2.2	2.2	1.9	0.7	0.7	0.7	0.7
Textiles	6.4	4.9	3.8	4.5	2.0	1.2	1.0	1.3
Paper	4.5	5.1	12.6	6.6	1.9	2.5	5.3	2.9
Printing	3.5	3.9	3.9	3.4	1.3	1.7	2.1	1.4
Leather	6.1	3.1	2.4	2.2	1.7	0.8	0.6	0.6
Rubber a/	74.6	6.3	6.4	4.5	50.2	4.3	4.0	2.7
Chemical products	4.4	5.3	4.0	4.3	1.2	1.6	1.4	1.4
Forestry	2.0	1.8	1.7	2.9	0.2	0.3	0.3	1.3
Petroleum (extraction)	7.5	3.8	6.0	9.1	2.9	2.2	3.2	7.3
Mining	9.0	9.1	14.1	5.1	0.3	0.8	1.2	0.5
Metallurgy and machinery	4.8	4.0	2.8	3.4	1.4	1.3	0.8	1.2
Stones, glass and ceramics	3.3	4.0	3.1	3.2	0.9	1.1	1.0	1.1
Construction enterprises	5.7	3.2	1.2	1.4	3.8	2.5	0.8	1.1
Electricity plants	11.9	10.6	4.7	2.6	5.5	5.6	2.3	1.4

Source: Bulletin of Buenos Aires Stock Exchange.

a/ The abrupt decline in the liquidity of "Rubber" may be explained by an analysis of the figures of one producer of Tyres which were as follows for the first two periods under consideration:

Financial year	Current assets	Creditors	Receivables
1943/44	17,837,525	103,492	13,389,000
1947/48	38,641,960	3,726,214	20,370,000

While current assets showed a relative increase of 111.0 per cent in 1947/48, creditors jumped by 3,517.5 per cent, and receivables 52.1 per cent, in comparison with financial year 1943/44. In the last two periods the proportion remained the same as for 1947/48.

/Depreciation and Reserves

### Depreciation and Reserves

The statutory and fiscal regulations governing depreciation are obviously unsuited to long periods of inflation, such as that prevailing since 1944. Companies anxious to build up special depreciation reserves, in keeping with the replacement cost of their fixed assets or in order to make provision for future increases in inventories, encounter insurmountable difficulties in the fiscal and price control regulations. In fact, these reserves are taxed as if they were dividends (and there was a time when such reserves were subject to double taxation if they were later distributed). Moreover, the regulations governing the computation of the income or excess profits taxes, and those fixing ceiling prices or profit margins, are such that the entrepreneur cannot build up such reserves.

Accordingly, depreciation is set down in the balance sheets according to the classical rules: as a proportion of original cost. In the financial year 1943/44 this cost was 930 million and depreciation until that time 300 million, or 31.9 per cent. The subsequent increase in fixed assets -- 600 million in 6 years -- was accompanied by a smaller proportional increase in depreciation allowances, which, in the last financial year, in the aggregate accounted for 30.4 per cent of the original cost. The proportion, which had risen up to 1947, declined after that time, as a result of the new investments made when imports revived (Table 39).

/Table 39

Table 39     Argentina :     Accumulated depreciation and reserves  
Percentage proportion of the original cost of fixed investments and of  
paid-up capital, respectively.

Financial years ending between		Depreciation as a percentage of original cost of fixed investments			Reserves as a percentage of paid-up capital		
1 April	30 March	Durable <u>a/</u>	Non-durable <u>b/</u>	Total <u>c/</u>	Durable <u>a/</u>	non-durable <u>b/</u>	Total <u>c/</u>
1943	1944	42.5	37.5	31.9	12.0	15.7	14.3
1947	1948	45.0	38.0	33.8	7.8	16.6	14.7
1948	1949	43.0	35.8	32.4	8.5	12.3	12.0
1949	1950	41.1	33.2	30.4	8.2	13.7	12.3

Source: Bulletin of the Buenos Aires Stock exchange.

a/ Producers of durable and semi-durable goods

b/ Producers of non-durable goods

c/ Including electricity

d/ The low percentage is due to the influence of the group of electricity plants which do not show depreciation in their balance sheets (only 1.5 per cent of the total).

The proportion of reserves also declined throughout the period under review, falling from 14.3 per cent of capital in 1943-44, to only 12.3 per cent in 1949-50. There are increases in the ratio of reserves to capital in the following industries: rubber, chemical products, forestry, mining, and stone, glass and ceramics.

#### Dividends

The nominal rate of yield (dividend as a proportion of paid-up capital) and the real rate (dividend as a proportion to capital and reserves) show two clearly different stages in this period. From almost 10 per cent of capital in the first year, dividends rose to 16 per cent in 1947-48, the year of highest yield. Then came a decline to 13.2 per cent. These figures clearly reflect two typical stages in the recent development of Argentine industry: the first, up to 1947, is a period of expansion, optimism and high margins of profits, when inflation had commenced but had not yet become serious, <sup>This was</sup> followed by the process of reduction or contraction, when the government effected a stricter control on profiteering and speculation, inflation became more pronounced, or competition

/from abroad

from abroad was renewed. There was also increased taxation and credit was restricted. Companies paid dividends by means of new issues of shares, thus obtaining the necessary capital for expansion.

The ratio of dividends to capital and reserves for the whole <sup>group</sup> of undertakings represented 8.6 per cent in 1943-44, 13.8 per cent in 1947-48, and 12.3 and 11.9 per cent in the last two financial years.

Since over half of the capital and reserves (60 per cent) was made up during times when the currency had greater purchasing power, these dividends should be analyzed in conjunction with the devaluation index to be strictly comparable, in which case it will be seen that the true decline was even sharper.

One last observation appears necessary in order to furnish a clear picture of Argentine industry at the present time. The dividends distributed, which seem high in relation to nominal capital, and which have allowed Stock Exchange quotations to remain high, are really a distribution of capital, that is, industrial companies in general are decapitalizing themselves. This statement may be verified as follows: the 168 and 179 million pesos paid out as dividends in the last two financial years did not cover the increase required, as a result of inflation, in inventories (118 and 102 million) plus depreciation for replacements. Inventories did not increase to the necessary extent, precisely owing to the lack of liquid assets, since stocks had been reduced.

Argentine legislation has always been opposed, either in connexion with public services or for purposes of taxation, to admit the cost of replacement. When inflation is slow or of short duration this attitude has no financial or economic effect on industrial companies but under present conditions, to ignore the replacements factor may cause extremely difficult situations.

The evolution of dividends has not been uniform in the two major groups of firms: producers of durable and non-durable goods. The ratio of dividend to capital and reserves was higher in the case of the latter until the financial year 1947-48, but the subsequent contraction was much greater. This ratio rose from 9.7 per cent in the base year to 15.9 per cent in 1947-48, falling to 11.3 per cent in the last financial year. That of producers of durable goods rose from 6.1 per cent to 10.1 and 15.4 per cent, marking a constant upward trend (See Table 4C).

/Table 40

Table 40      Argentina: Percentage ratio of dividends to paid-up capital  
and to capital and reserves

Financial years ending between the		To paid-up capital			To capital and reserves		
		Durable	Non-durable	Total	Durable	Non-durable	Total
1-4	of 30-3	a/	b/	c/	a/	b/	c/
1943	1944	6.8	11.3	9.8	6.1	9.7	8.6
1947	1948	10.9	18.5	15.8	10.1	15.9	13.8
1948	1949	16.4	13.7	13.7	15.1	12.2	12.3
1949	1950	15.8	12.9	13.2	15.4	11.3	11.9

Source: Bulletin of the Buenos Aires Stock Exchange.

- a/ Producers of durable and semi-durable goods  
b/ Producers of non-durable goods  
c/ Including electricity

### CHAPTER III    CONDITION, PRESENT PROBLEMS AND FUTURE PROSPECTS OF                                  ARGENTINE INDUSTRY

Certain conditions and problems arise out of the structural changes in the Argentine economy, particularly the changes in industrial undertakings, as analysed in the two preceding chapters. Some of these are peculiar to each group or branch of industry, whereas others are common to all or a large part of them.

#### General position of industry and common problems

The position of industry in 1950 was one of expectancy. At first there was apprehension, followed by greater confidence after international events (the war in Korea) led to the belief that there might be a general recovery of activity.

As always, the events which hampered foreign competition provided powerful incentives for Argentine industry as a whole, although not for those particular industries which depend considerably on foreign supplies.

This new prospect of future expansion lies in the difficulties facing foreign competition. If it materializes, its usefulness will be impaired by the characteristics of present economic conditions and in particular the full employment of labour. The existing plants have been working to full capacity for three years, since the cut-backs in production which are being noted in industry as a whole are not yet important except in some industries. Meanwhile the installation of new machinery is taking place at a rate lower than normal, as shown in Chapter II.

There is no doubt that labour is now fully employed, particularly the more skilled labour, but the slight decline in employment which began to be noticeable at the beginning of 1949, as a result of a continued expansion in supply both of domestic labour and of foreign immigrants, could be the basis for another future expansion. As already stated, the annual increase in the supply of labour for all activities is estimated at 100,000 persons, of which 50,000 are provided by the natural population growth and 50,000 by immigration. Labour's skill is also improving, through greater experience as well as better training. The numerous apprenticeship schools which are attached to almost all trades, had 35,000 pupils in 1950. Fortunately, absenteeism and indiscipline are not so common as formerly and consequently it may be expected that the output of the workers has improved.

/There are

There are also limiting elements among the other factors.

The international machinery market is virtually closed. Although there are liberal conditions governing imports without use of foreign exchange or with the undertaking to deliver foreign exchange at fixed periods, the operations concluded or to be concluded will not be very large. It is almost impossible to supply increases of electric energy in the greater part of the country, through the inability of the plants to meet the increase in domestic household consumption, and the prospects of expansion are somewhat distant. There is little doubt that a rationing system will have to be introduced to cover the needs of new consumers.

In general, there is no shortage of domestic raw materials, but during 1950, and particularly the last months of that year, there was a shortage of foreign raw materials, due to the strict controls being introduced in the supplying countries. The same could be said of the machinery spares needed to maintain productive capacity. The structural changes in industry have not made it independent of foreign supplies, but have changed the composition of imports. Requirements for fuel, raw materials and semi-manufactured products for industry have increased as well as those for machinery spares, and new machines for replacement or normal expansion; requirements exceed the supply of foreign exchange, even though no permits are being granted for consumer goods.

Broadly speaking, stocks of imported raw materials may be considered exhausted, particularly essential, critical or strategic materials. It has been estimated that imports to the tune of 4,200 million pesos a year are needed.

Although there were declines in the quantity of imports of certain raw materials in the course of 1950, there is a healthy trend in the composition of purchases from abroad, tending in accordance with stated policy, to favour the import of raw materials and semi-manufactured articles for industry, as well as spares and equipment necessary to keep industry busy.

As already stated, inflation and the credit restrictions introduced to combat it, are very serious hindrances to new expansion, apart from the hampering of the normal development of production.

The installation of new undertakings with national capital, or expansion of existing ones, is practically at a standstill. Important structural changes are taking place, and well organized and financially sound businesses are carrying out interesting operations involving the purchase of enterprises or the integration of industrial groups.

/Plans of

Plans of foreign groups for installing themselves in the country, which abounded during the years 1946 to 1948, were not so noticeable in 1949 and 1950, in spite of the many advantages accorded to these groups, such as exemption from duties and facilities for bringing in personnel. There are merely some groups which would be interested in making temporary investments, but rather as financiers and subject to very onerous conditions, taking advantage of the shortages of credit and foreign exchange.

Domestic production is only sufficient, in quantity and quality, so far as the following are concerned: foodstuffs, tobacco, ordinary cotton and woollen textiles (not very fine articles), garments, ordinary papers and cardboards, printing, the majority of medicines and pharmaceutical products, dyes and paints, tanning materials, soap, oils and other less important chemical products, leather goods, ordinary ceramics and glass, round iron for construction and iron piping, lead, certain types of simple machine tools and farming machinery, electrical goods and appliances, gas and other less important items. Owing to import restrictions there is a shortage of fine textiles, burlap, plywoods, fine papers, rayon, certain medicines, sodium carbonate, rubber goods, cement, tinsplate goods, copper and aluminium and workshop capacity. The same is true of electricity.

#### Analysis of the different factors

##### Fuel and power

The halt in domestic petroleum production has been offset by heavy imports. Production of electricity is insufficient and is rationed. Any new industrial connexion has to be approved by the Dirección Nacional de la Energía, and certain regulations have been introduced to reduce the growing household consumption and commercial or public consumption (ban on the installation of electric cookers, restriction of commercial and industrial illumination, etc.). It has lately been forbidden to transfer industrial sites, with electric energy quotas, without permission from the said Dirección. Since it is easier to obtain petroleum than electric energy, there has been a considerable increase in the installation of private generators in spite of their drawbacks. The domestic manufacture of generators and generating equipment is still at the experimental stage, because of the heavy investments required and the high royalties charged by European and American patent owners, as well as the fear that imports may be

/resumed.



resumed. Present and potential consumption of diesel engines is sufficiently heavy to justify the installation of factories with production lines and high output.

### Machinery

Machinery is in a similar position. Demand is still very great, in spite of the critical situation through which industry is passing. There has been no replacement to make good wear and tear, and many factories need to modernize their equipment. In spite of the considerable increase in imports, which treble compared with the pre-war level, there are many enterprises which are unable to purchase equipment, at least at the official rates. At this point it should be made clear that manufacturers free from price controls can well afford to buy machinery at 20 pesos to the dollar, since they are certain of being able to sell their production at a profit. But the undertakings subject to control, which include those supplying consumer needs and which have to satisfy an increasing demand, are unable to make such costly investments since they cannot amortize their machinery rapidly owing to price controls and income tax regulations. As they are forced to sell on the basis of cost, subject only to very small depreciation allowances, they would be unable to cover their new production costs.

With the devaluation of the peso on the world market, investment costs have risen considerably; this is another of the factors which have brought the expansion of industry to a standstill.

### Labour

Full employment, which in 1949 and 1950 was a stabilizing influence on industrial development is potentially ceasing to perform this function despite a betterment in the capacity and output of technicians, foremen and workers.

However, during 1949 and 1950 industry was still affected by both circumstances, although to a decreasing extent. The decline in the number of hours worked for all industry, was very serious between 1943 and 1945, dropping by 5 per cent, that is at the rate of 2.5 per cent a year. This decline continued later, but much more slowly, at an average rate of 1 per cent. Altogether there was a decrease of 11 per cent in 6 years.

/This reduction

This reduction in the number of hours worked is similar for all industries, although it is particularly noticeable in petroleum refining, where the drop was 20 per cent, in chemical products, tobacco, printing, and stones, glass and ceramics. In certain industries this decline is due to a shortening of the working day from 8 to 6 hours for health reasons, though in some cases these reasons were disputed by the employers. Declines were less marked in the case of textiles, garment manufacture, steel, rubber, machinery and electricity. Apart from the statutory reason mentioned above and apart from absences corresponding to holidays with pay, which reduced the number of hours worked by 4.6 per cent in 1949 and by 4.2 per cent in 1948, the absenteeism is due exclusively to the workers themselves, for reasons such as sickness (3.8 per cent), strikes (0.9 per cent), other personal reasons (3.5 per cent) or accidents (1.1 per cent). Altogether, during those years these factors reduced activity by an average of 9.3 per cent (Table 43).

Table 43 Argentina: Attendance and absenteeism among workers in 1949  
(expressed in percentages of employment)

Groups of industry	Attendance	Holi- days with pay	Absenteeism				
			Total	Accidents	Sick- ness	Strikes	Personal reasons
<u>GENERAL LEVEL</u>	<u>86.1</u>	<u>4.6</u>	<u>9.3</u>	<u>1.1</u>	<u>3.8</u>	<u>0.9</u>	<u>3.5</u>
<u>Extractive industries</u>	<u>86.7</u>	<u>6.0</u>	<u>7.3</u>	<u>1.4</u>	<u>2.7</u>	<u>1.2</u>	<u>2.0</u>
<u>Manufacturing industries</u>	<u>86.0</u>	<u>4.5</u>	<u>9.5</u>	<u>1.1</u>	<u>3.8</u>	<u>1.0</u>	<u>3.6</u>
Foodstuffs and beverages	83.6	5.0	11.4	1.6	4.2	2.2	3.4
Tobacco	84.1	4.6	11.3	0.9	5.4	0.1	4.9
Textiles	87.1	3.9	9.0	0.5	4.3	0.1	4.1
Garment	88.1	4.6	7.3	0.3	3.8	0.1	3.1
Timber	86.2	5.4	8.4	0.8	2.6	0.6	4.4
Paper and cardboard	85.5	4.2	10.3	1.4	3.5	2.6	2.8
Printing and publishing	83.5	5.0	11.5	0.7	3.6	5.3	1.9
Chemical products	86.5	4.1	9.4	1.3	4.3	0.5	3.3
Petroleum products	86.0	6.7	7.3	0.9	4.7	0.3	1.4
Rubber	84.2	4.7	11.1	0.6	5.3	0.9	4.3
Leather	86.3	4.9	8.8	0.7	4.0	0.1	4.0
Stone, glass and ceramics	87.7	3.9	8.4	1.0	3.3	0.4	3.7
Metals(excl.machinery)	86.8	4.2	9.0	1.5	3.7	0.3	3.5
Vehicles and machinery (excl. electrical)	88.5	3.4	8.1	1.5	3.1	0.3	3.2
Electrical machinery equipment & appliances	87.0	3.9	9.1	1.3	4.2	0.6	3.0
Miscellaneous	86.2	5.1	8.7	1.0	3.2	0.1	4.4
<u>Electricity &amp; Gas</u>	<u>89.8</u>	<u>5.4</u>	<u>4.8</u>	<u>0.9</u>	<u>3.1</u>	<u>...</u>	<u>0.8</u>

Source: La actividad industrial argentina desde 1937 a 1949.

/Summing up,

Summing up, for a hundred working hours in 1949, attendance was 86.1 per cent and absence 13.9 per cent, the position being practically the same for 1948. This means that recently there has been no reduction in the number of hours worked.

Absenteeism is not similar in each industry or group of industries. Attendance is better in mining, excluding petroleum, reaching over 90 per cent, and worse in the packing plants, sugar, tobacco, cellulose, and printing trade, reaching almost 80 per cent. During 1949 the successive strikes in the sugar industry meant a 16 per cent reduction in working hours.

Accidents particularly affected the metallurgical industry, while illnesses affected the tobacco, rubber, petroleum refining and chemical products industries. There is no general rule for strikes, which each year affect one or another industry indiscriminately. The following were affected in 1949: sugar (15.9 per cent), flour (4.7 per cent) mineral waters (4.6 per cent), in the group of food industries; and the manufacture of cellulose (8.8 per cent), printing (5.7 per cent) and publications (4.5 per cent). However, this factor has had little bearing on the whole (0.9 per cent). There were fewer strikes in 1950 than in 1949 or in any previous years, but they were on a larger scale, involving a greater loss of working days.

It is not possible to measure the reductions in output and in work due to economic or technical factors, such as lack of raw materials, tools or replacements for machinery, lack of energy, or through aging of the machinery.

Shortages of raw materials and other elements, which considerably affect industries purchasing them specially from abroad, have become more and more noticeable during 1948, 1949 and 1950, on account of the problem of foreign exchange. This is more serious in those industries which are required to sell their products at fixed prices and which cannot, therefore, work with expensive raw materials, purchased through the black market, and in the last months of 1950, under the system of importing without use of foreign exchange. Special mention in this connexion may be made of petroleum extraction, canned meats, chocolate manufacture, jute and other long fibres, timber, paper, newspapers and other publications, tyres, inner tubes and rubber shoes, tinsplate ware and the metallurgical and mechanical industry in general.

In studying the evolution of industry in Chapter 1, the indices of labour output were analyzed, either according to worker employed or according to man-hours worked, the latter providing a more concrete picture of labour output within the factory.

It is commonly stated that the worker's efficiency is steadily declining, but this is not borne out by the statistics. Let us have another look at the indices. The quantum of production per worker employed had seriously declined between 1937 and 1943, by almost 20 per cent for industries as a whole. The industries showing the most marked declines were: timber, printing, metallurgy, machinery and rubber; but some showed increases: tobacco, textiles, leather and electricity. However, from 1943 until 1948 there was a general, steady increase, both per worker employed and per man-hour (the figures being 11 and 23 per cent respectively). This increase was particularly marked in 1947 and 1948, when imports of materials necessary for production became normal and machinery was imported in large quantities (Table 44). There were particularly notable increases in the following industries: tobacco, garment manufacture, timber, petroleum refining, metallurgy and machinery, rubber and electricity; in other words, in practically all those which had experienced declines in earlier years. There were no increases, and even some declines, in industries in the group of mining, food-stuffs, chemical products, leather, stone, glass and ceramics, and electrical machinery and products (Table 45).

These figures indicate that declines in output, which were considerable from 1939 to 1943, were specifically due to economic and technical difficulties, since once these were partly overcome by means of imports in the years 1946 and 1947, and to a lesser degree in 1948, those losses were almost entirely offset.

The indices indicate a reduction in 1949 in relation to 1948, of 2 per cent as regards workers employed and 1 per cent as regards man-hours.

This setback should also be attributed to the technical and economic circumstances which returned with import difficulties. This statement is confirmed by the fact that the industries particularly affected by this setback were those which were more dependent on supplies from abroad. In the mining industry the decline was 5 and 2.3 per cent, respectively, in the garment industry 12.9 and 11.7 per cent, in timber, 2.3 per cent for workers employed, with an increase of 0.8 per cent in man-hours for chemical products, 4.5 and 4.3 per cent, for petroleum products 8.3 and 6.3 per cent, for leather 4.3 and 4.4 per cent, for machines and vehicles 24 and 26.9 per cent, and for rubber 12.2 and 9.1 per cent.

/In continuation

In continuation of earlier trends, there were increases in output in the food industry (4.5 and 9.6 per cent), tobacco (4.2 and 5.7 per cent), primary textile (2.0 and 1.8 per cent), stone, glass and ceramics (4.0 and 3.4 per cent), metallurgy (3.6 and 3.5 per cent) and machinery and electrical apparatus (3.8 and 5.2 per cent).

Table 44 Argentina: Output of industrial labour.  
1943 = 100

<u>Years</u>	<u>Output per worker employed</u>	<u>Output per man-hour</u>
1943	100.0	100.0
1944	103.0	103.6
1945	97.5	102.8
1946	101.3	109.1
1947	110.1	119.1
1948	111.0	122.9
1949	108.7	121.6

Source: "La Actividad Industrial de 1937 a 1949"

Table 45 Argentina: Output of labour by groups of industry  
1943 = 100

<u>Groups of industry</u>	<u>Per worker employed</u>			<u>Per man-hour</u>			
	1948	1949	1949	1948	1949	1949	
			1948			1948	
		%				%	
<u>EXTRACTIVE INDUSTRIES</u>	<u>90.1</u>	<u>85.6</u>	<u>95.0</u>	<u>100.8</u>	<u>98.5</u>	<u>97.7</u>	
<u>MANUFACTURING INDUSTRIES</u>							
Foodstuffs and beverages	87.3	91.2	104.5	93.7	102.7	109.6	
Tobacco	115.8	120.7	104.2	132.3	139.0	105.1	
Textiles	107.4	109.6	102.0	117.4	119.5	101.8	
Garments	132.9	115.8	87.1	137.6	121.5	88.3	
Timber	128.6	125.7	97.7	143.0	144.1	100.8	
Paper and cardboard	94.5	94.3	99.8	105.5	107.2	101.6	
Printing and publica- tions	120.4	117.6	97.7	137.0	143.1	104.5	
Chemical products	89.3	85.3	95.5	108.9	104.2	95.7	
Petroleum products	97.3	89.2	91.7	119.0	111.5	93.7	
Rubber	252.5	221.8	87.8	252.7	232.2	91.9	
Leather	84.1	80.5	95.7	92.3	88.2	95.6	
Stone, glass & ceramics	75.8	78.8	104.0	90.9	94.0	103.4	
Metals, excl. machinery	139.0	144.0	103.6	147.3	152.4	103.5	
Vehicles & machinery excl. electric machinery	145.5	110.6	76.0	158.6	115.9	73.1	
Electrical machinery equip- ment & appliances	94.7	98.3	103.8	106.3	111.8	105.2	
Sundries	145.0	159.3	109.9	162.0	181.1	111.8	
<u>ELECTRICITY &amp; GAS</u>	<u>133.4</u>	<u>128.1</u>	<u>96.0</u>	<u>127.9</u>	<u>131.8</u>	<u>103.0</u>	

Source: "La actividad industrial de 1937 a 1949"

/Costs

### Costs

Cost factors have risen nominally. There is little information available with which to measure the influence of each one of the major components: wages, raw materials, energy, general expenses and taxation charges, over the years. There are no sufficient or recent data on which to base complete analysis of the present position and development. All we can say is that the proportion of salaries and wages to costs as a whole has risen (if we include indirect social benefits), and the same is true of taxes, at the expense of the ratio of raw materials to all costs.

### Wages

The level of wages per worker rose about 330 per cent between 1937 and 1949, since total wages paid rose by 714 per cent, whereas employment rose by 87 per cent. Actually this increase in the nominal average wage per worker was very moderate until 1943, in which year the index stood at 14 per cent above the 1937-39 figure. Since then the rise has been very much sharper, being as much as 35 and 40 per cent in the last three years.

Since 1943, the total for wages has increased fivefold, the average wage per worker rising from 100 to 382, and per man-hour to 432, while the wage per unit of production rose to 353 (Table 46).

These figures include everything received directly by the worker and employee, that is, in addition to wages paid in money, the bonus, paid vacations and holidays, the worker's contribution of 8 per cent to the pension fund and sickness benefit, all of these being benefits granted as from 1943. However, the figures do not include other amounts paid by the entrepreneur, which the worker receives indirectly, such as the employer's contribution to the pension fund, the contribution to the Instituto de las Remuneraciones, accident insurance, apprenticeship contribution and the reserve for severance pay. Altogether, these items are equivalent to 30 per cent of wages and 26 per cent of salaries.

During 1950 the upward trend continued. Collective agreements include, apart from increases in wage rates, other benefits for family allowances. These increases have been about 40 per cent and have been generally agreed upon for periods of 2 years.

/Taxation charges

Taxation charges

Taxation charges have been increased in recent years, particularly in the form of changes in the basic rates and scales of income tax, excess profits taxes, higher sales taxes (from 1.25 per cent to 8 per cent), stamp duties and other forms of direct taxation. These taxation charges were extended in 1950 by the 30 per cent fixed tax on company dividends, which particularly affects the small investor, and the amendment of the Customs Tariff Act. This amendment, which came into force at the end of 1950, will imply a rise in customs duties of altogether 20 per cent, which will be reflected in the cost of industries purchasing their raw and other materials abroad.

Table 46 Argentine: Average nominal wages for industry as a whole.

1943 = 100

Years	Wages paid	Average wage		Wage per unit of production
		Per worker employed	Per man-hour	
1943	100.0	100.0	100.0	100.0
1944	119.3	108.4	110.2	106.3
1945	137.8	119.5	126.3	122.8
1946	180.4	145.4	157.0	144.0
1947	269.1	205.8	223.3	187.6
1948	371.2	281.1	311.9	254.0
1949	500.1	406.0	428.9	352.7

Source: "La actividad industrial de 1937 a 1949"

Financing and credit

The changes in the financial structure of industrial enterprises have been explained above (Chapter II) where we also described how these have had to resort to permanent investments of capital for the purpose of financing expansions and chiefly increases in working capital due to higher costs. It was neither natural nor desirable for this increase in costs to be covered by credit, but it would appear reasonable for credit to have been expanded in similar proportion to such an increase.

Between 1946 and 1948, the banks, prompted by the Central Bank, expanded credit considerably. Both absolute and relative quantities increased for industrial activities.

/Investors

Investors absorbed heavy quantities of shares in companies and other bodies corporate; these shares were issued for the purpose of expanding the capital and activities of existing enterprises, or of creating new ones. The number of issues quoted on the Buenos Aires Stock Exchange increased. In 1948, shares amounting to 744 million pesos were issued, representing 75 per cent of the total of public and private issues. In 1949, the Comision de Valores, a supervising agency, adopted measures to limit such issues, with the object of curbing speculative activities. There is no doubt that this objective could be partly achieved, but the negative effect would be even greater. In 1949 issues slightly exceeding 500 million were admitted. Actual requirements must have been much greater, in view of the financial straits of the entrepreneurs (Table 47).

Although stock exchange transactions in industrial securities are still too small to provide an indication of the extent of capital formation, nevertheless they do indicate trends. As there are very few shares on the market, their prices are strongly and easily influenced by the great group of interests. Nevertheless, they provide a relatively clear index of the psychological position of investors and of financial yields.

Table 47 Argentina: Issues by private undertakings authorized by the Comision de Valores.

Years	Millions of m\$ <sup>n</sup>	As percentages of total issues (private and public)
1938	3	5
1939	16	6
1940	37	22
1941	33	12
1942	200	44
1943	107	24
1944	127	39
1945	238	9 a/
1946	237	54
1947	687	51
1948	744	75
1949	543 b/	66

Source: Buenos Aires Stock Exchange

- a/ Excluding 2,000 million pesos of Mortgage Bonds of the Central Bank, the proportion rises to 35 per cent. In that year 250 million pesos were issued for "mixed" (private-public) agencies (F.A.M.A. and E.M.T.A.)
- b/ Of this amount 224 million is accounted for by new capital, 185 million by capital of existing undertakings whose shares were not previously quoted, 132 million by stock dividends and 4 million by the capitalization of reserves.



The wait-and-see attitude and anxiety of many businessmen is reflected in the movement of stock exchange transactions. The course of quotations for industrial shares, within certain limits, reveals the general behaviour of investors vis-a-vis the changes in the situation which are foreseeable in the light of the risks or profits in industrial production. It has already been said that the shares of one group of enterprises has a decisive influence on the whole and sometimes causes changes of a speculative nature which do not reflect the general position. In Table 48, which shows the course of quotations, the influence of certain important events may be observed:

- a) The end of the war, in mid-1945, permitted entries of capital and the resumption of the import trade, causing an increase in economic activity with a sharp rise in quotations, which continued until early 1949. The greater wealth and increased purchasing power of a large sector of the population, as a result of the social policy followed, were a contributing factor in this rise.
- b) Restrictions on credit, introduced in the second half of 1947, by limiting activities in general, and speculation in particular, caused quotations to fall, first when the restrictions began, and again in the second half of 1949, when new regulations were introduced.
- c) The radical change in economic policy, at the beginning of 1949, caused the slump in February of that year, which led to a number of bankruptcies. The decline which began at that time, partly arrested by the Instituto Mixto de Inversiones Mobiliarias, reached a low in mid-1950, following increases in wages and taxes and the freezing of prices. At the end of the year, quotations recovered as a result of the assistance offered to capital wishing to enter the country, and recently they became hesitant in view of the international situation.

Bank credits, particularly those of private banks, have been severely reduced since the enactment of Decree No. 33,425 in October 1948, which established  
/an excessively

an excessively strict limitation. Subsequent regulations reduced the severity of this measure, except for speculative activities in general. In the industrial field, credits for equipping new industries or expanding existing ones were ordered cancelled. These had already saturated the market, or implied the use of considerable labour. The only exceptions were industries which were indispensable to the general interest.

Table 48 Argentina: Price index of industrial shares  
 1939 = 100

Years	Annual Average	Months	1947	1948	1949	1950
1939	100.0	January	401.3	449.3	586.9	430.5
1940	110.8	February	434.7	479.6	538.9	425.2
1941	114.4	March	470.5	497.7	504.0	419.5
1942	137.3	April	555.7	494.4	480.2	425.5
1943	141.9	May	514.4	493.8	460.2	404.0
1944	153.5	June	455.1	505.8	446.0	395.6
1945	191.0	July	461.9	509.0	405.3	359.9
1946	288.3	August	434.3	517.6	404.9	397.7
1947	441.6	September	418.7	543.6	460.7	429.7
1948	517.5	October	428.5	579.4	452.1	423.9
1949	467.7	November	441.0	567.3	444.0	445.2
1950	416.8	December	432.0	573.1	428.4	445.1

Source: Banco Frances e Italiano (Financial Research Dept)

Economic policy

Chapter VI contains a very detailed description and discussion of the measures of industrial economic policy adopted by the Government after 1943. Consequently, this aspect will not be studied in great detail here.

We should at this point mention the most recent measures connected with the position of industry in 1950. After almost two years of Government action, during which conservative rules were applied which were inconsistent with the policy of industrial development, such as selective control of foreign exchange and industrial credit (although restrictive) and many others of a fiscal nature, of trade agreements, control and fixing of prices etc., the Government took three very important steps in August 1950, which will undoubtedly have an influence in giving new momentum to industrial development after the period of stagnation.

/These steps

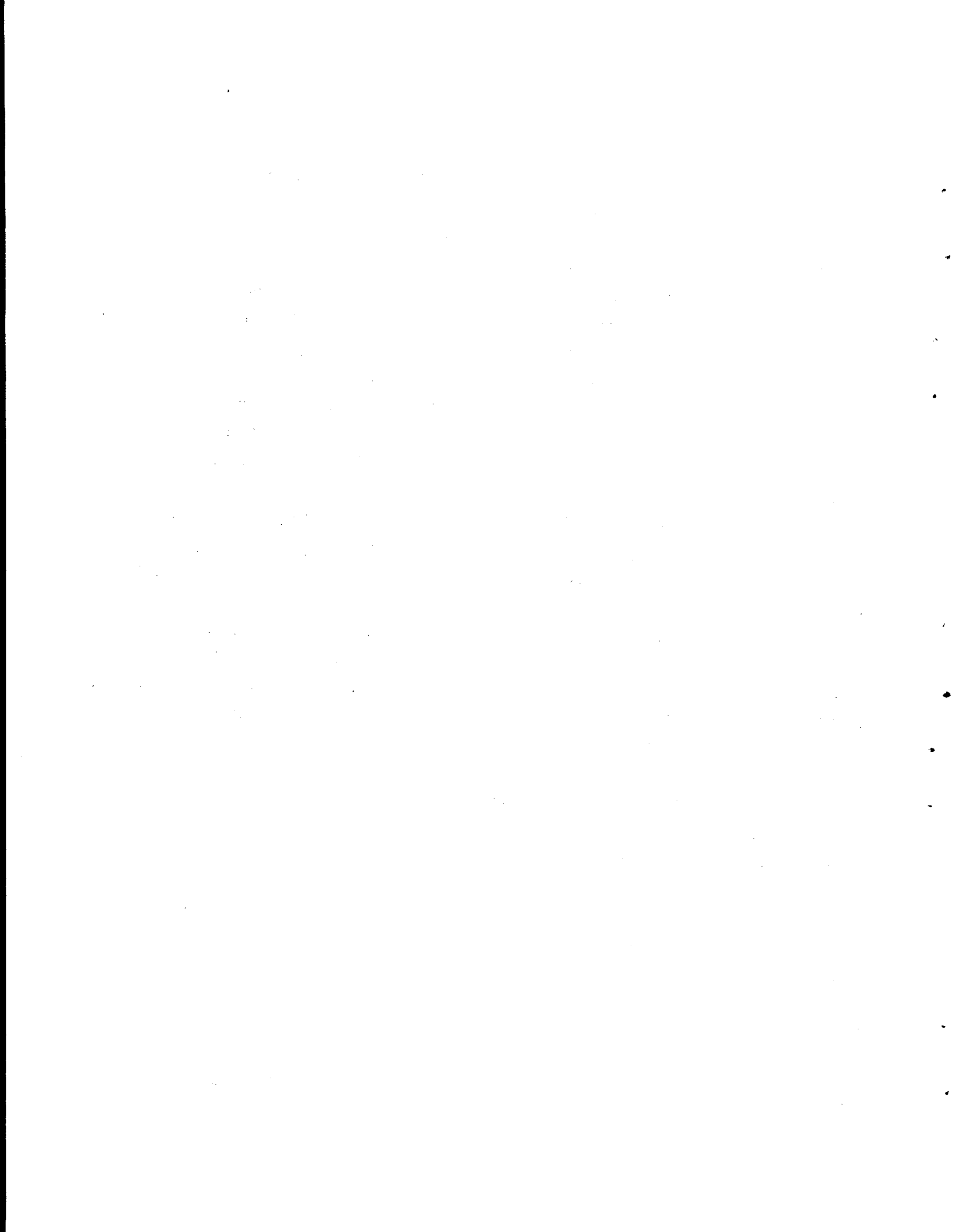
These steps are: devaluation of the peso in relation to other currencies, revision of the system of rates of exchange with the introduction of import permits without use of exchange or with deferred payments, and the substantial modification of the customs system. The first two were necessary to achieve equilibrium in the free currency and "clearing" markets since they will assist exports and tend to reduce imports. The new customs regulations will result in a real increase in the costs of imported products and produce a large revenue for the government. Domestic industry has been granted protection insurance for the future when foreign exchange will not be converted, as it is today, in the filter which defends local production and favours it by means of shortages. This kind of protection had been insistently but unsuccessfully requested by industrial circles for over 20 years.

Commentators in Argentina have not paid much attention to this measure, but it is very important. For the moment, together with the other two, it has helped, as stated at the beginning of this chapter, to calm down and consolidate many entrepreneurs, who feared the future and foreign competition.

Meanwhile the price control policy to prevent profiteering and speculation was continued. There have been various methods of applying these measures over four or five years. Fixed prices were more favoured for foodstuffs. In view of frequent increases in costs (through increased wages, taxes and general expenses, and increases in the prices of raw materials) the system was always too rigid and caused serious difficulties which resulted in losses and declines in production. In the case of textile products for popular consumption and other consumer goods, systems of margins between cost and selling price were applied, or else general margins at the end of financial years, between total costs and total sales, or the freezing of prices.

In some cases, such as Portland cement, a fixed profit is allowed, irrespective of cost. In every case, the cost should be calculated after allowing for depreciation as authorized by the Direccion General Impositiva; in actual fact, the Direccion does not admit depreciation or replacement reserves with the exception of the double depreciation allowance in the case of investments subsequent to 1940.

/During 1949



Domestic cotton, which is mostly of average quality, is almost entirely processed within the country, and only certain surpluses of poor quality are exported in years of great production. Yarns with counts above 40 or raw materials for artificial fibres still have to be imported. The woollen industry, with abundant raw materials, entirely meets the demand for carded wool and almost all that for combed wool, except for very fine yarns and very specialized fabrics. On the other hand, there is surplus production capacity for the export of "tops", knitting wools, carded yarns of all qualities, combed yarns of counts lower than 40, common carded wools and women's fabrics, worsteds, of over 300 grams per lineal metre and blankets.

Weaving mills for knitted fabrics and hosiery have met with some difficulties in supplying the market, not for lack of production capacity but because there was very little domestic production of very fine yarns. This was also the case for weaving and spinning mills for long fibres.

The auxiliary industries (dyeing and finishing) increased their capacity in keeping with the general expansion, although they have still not reached higher technical perfection in certain respects.

This excellent economic position has shown some deterioration in the last two years, for reasons similar to those described as affecting industry as a whole. The problems arising out of inflation were not foreseen or solved with the necessary speed, and difficulties arising out of import restrictions and export control, credit restrictions and lack of co-ordination between the policy of wages and price control, have also been encountered.

Price control has affected all branches of the textile industry since 1939 and particularly since 1946. The system in general, so far as manufacturers were concerned, lay in fixing percentage margins of profits on the cost and for traders in percentage differences between the buying and selling prices, no allowance being made for unnecessary middlemen. This system was acceptable (Decreets Nos. 32,506/47 and 4,995/49) because the margins were reasonable, except that they did not allow for depreciation for replacement of equipment or the increase in working capital nor the problems of new entrepreneurs.

However, by Decree No. 24,574 of 30 September 1949 selling prices were frozen; it provided that rises in cost could be passed on to prices, but as under Decree No. 15,718 wage increases were not permitted to affect prices, the final result of the system was to create great difficulties for industry.

/At the

At the end of 1949, and during the first few months of 1950, some price adjustments were permitted to allow for the extraordinary price increases then occurring in raw materials. The price of raw cotton rose from \$3.50 to \$4.50 a kilo (and affected the cost of yarn by 40 to 50 per cent) while wool rose to almost double (for example, merino wool rose from \$9.30 per kilo, in September 1949, to \$16.- in May 1950, the "pampa" type rising from \$4.90 to \$9.80 between the same dates) and they continued to rise until the end of 1950.

Moreover, the workers gave notice of terminating the collective labour agreement due to expire on 31 December 1949 and asked for new wage increases. The manufacturers agreed to increases equivalent to between 25 and 40 per cent, according to categories, on condition that these increases were to be allowed to be passed on to costs. As this was not allowed, they refused to sign the new collective agreement, which became mandatory by resolution of the Director General of Labour retroactive to 1 January of that year.

In the end, the Government recognized that it was impossible in practice for the undertakings, particularly the financially and technically weaker ones, to comply and by Resolution No. 1,165 of the Ministry of Industry and Commerce of 16 August 1950, the textile industry was excluded from the price freezing and remained subject to the previous regulations. The percentages established were reduced by 2 per cent and it was forbidden for this percentage to be applied to the new increases in costs.

The textile industry also encountered difficulties through the lack of certain replacements and raw materials, such as needles for looms, aniline dyes, certain chemical products, slides for endless belts and fine yarns, stocks of these running out and import permits not being sufficient to replace them. In May 1950 the Banco Central decided to extend permits in order to meet this situation.

Exports of textile goods, which had been so voluminous during the war, had been practically banned entirely in 1946 and 1947, to safeguard domestic supplies. This was a mistaken policy because the ban covered even goods for which productive capacity already exceeded demand.

/By Decree No. 8,018

By Decree No. 8,018 of 3 May 1950 this error was rectified, all restrictive measures being dropped. In the exchange modifications of May and August 1950 more favourable exchange rates were granted for textile goods. These measures are presumably of great assistance in regaining American and European markets for the Argentine textile industry, particularly the woollen industry. This particular branch has two clear advantages: the abundance and good quality of the raw material, of which Argentina is one of the four world suppliers, and the excellent quality of its machines, which are new and of high output in comparison with the European industry as a whole, and even that of the United States. It should be remembered that the equipment of the Argentine textile industry took place almost entirely in the last twenty years.

These new regulations were supplemented by the complete revision of the customs system (Decree 17,607 of 23 August 1950) which, in determining, in accordance with the authority granted to the Executive by Act 12,964, the charging of duties on the declared C.I.F. value, instead of on a fixed tariff value, provides definitive and complete protection for the Argentina textile industry.

This new Government decision is a far-reaching step which will certainly greatly influence the expansion plans of present factories, since they are assured of being able to compete in future.

It should be added that the textile industry, like nearly all the others, suffers from the difficulties of re-equipment. The local production of textile machinery, which had made great strides during the war, was heavily hit during 1947 and 1948 when import permits were granted liberally. Now no more permits are granted for the import of machinery, but the workshops have partly turned to other branches.

Another factor which has influenced this industry has been the restriction of banking credit and the uncertainty of the wage policy, plus the circumstance that wage legislation will almost certainly be retrospective against which the manufacturer cannot protect himself because the regulations forbid it.

#### The metallurgical industry

The different branches of the metallurgical industry show the conditions of development common to industries which manufacture capital goods, as seen in Chapter I. There are also profound differences according to whether foreign raw materials (steel, aluminium, copper) are mainly used, or whether domestic

/minerals

minerals (lead, zinc, tin) are smelted and used. The former group experienced a more intense, rapid and fundamental development, since they manufacture articles of which the greater part were formerly imported and which are vital for maintaining or expanding existing productive equipment. The others were already developed, and any expansion in production has been slower, being dependent on the domestic market.

In the last two years, the position and problems of both groups were somewhat different on the whole, although there are some similarities. The former was characterized by an excellent economic position, affected in 1949 and 1950 by difficulties in importing equipment and raw materials, or by fear of competitive imports of similar products from traditional suppliers. The second suffers from domestic difficulties, such as lack of transport, of raw material or production equipment. The first group in general is producing actively, on a rising scale, without meeting all requirements, whereas the second group shows serious declines in the volume of production, which is still insufficient to satisfy a continuing consumer demand.

The outlook for all of them is unclear; stocks of materials in process of manufacture or completed are very low, they suffer from present shortages or uncertain future supplies of raw materials and hence have to husband them; there is the question of return to normal in the availability, attendance and discipline of labour, constant increases in wages and raw materials which affect costs and increase the difficulties of competing with possible imports or domestic substitutes; there is the wear and tear of equipment with no possibility of replacement, and serious financial difficulties.

At the end of 1948 the workers presented a demand for "emergency" wage increase, and a 25 per cent increase was agreed upon with the employers. A few months later another demand was presented which culminated in an agreement reached on 3 May 1949, valid until 3 November 1950. As a result of these two agreements, the increase in wages was 70 per cent, which have a very direct bearing on costs, since wages represent from 30 to 60 per cent of production costs. These agreements include new "social clauses", that is, indirect increases in wages, which for this industry, together with those agreed upon in previous years, account for 68 per cent of nominal wages.

/These increases



These increases, together with those for raw materials, and fuels, brought prices to a very high level, since although Decree No. 15,717 of 11 June 1948 forbade the companies to pass wage increases on to selling prices, later decrees had to permit this. Competition with products of foreign industry was nominally impossible. Consequently, when trade agreements signed in 1949, particularly that with Great Britain, provided for imports of increasing quantities of metallurgical products which the industry made, there was considerable fear, which gradually lessened when it became impossible to carry out such imports for monetary reasons.

It was not until the middle of 1950, with the introduction of the measures already mentioned covering the reformation of the tariff structure, which had been desired and requested repeatedly by the trade organizations, the devaluation of the peso and the new exchange regulations, that there was hope of eliminating a competition which could not be met, even in the case of industries which had been firmly entrenched before the war. Meanwhile the buyers had restricted purchases from the manufacturer, in the hope of obtaining cheap imported products.

Simultaneously there was the case of industries which could not compete with similar foreign products unless they could obtain favourable terms for importing raw materials. The new regulations have reaffirmed the principle of giving preference to these and to capital equipment for manufacturing finished products.

The factories which had sold their products abroad during the years 1940 to 1946 were also unable to compete when domestic costs were so high.

The imports of machinery and equipment effected in 1947 and 1948 meant a considerable reinforcement of productive capacity. However, in the two years thereafter the capacity of many factories declined because it was impossible to replace their installations or machinery. At the same time, restrictions in the use of electric energy hampered improvements in mechanization.

The two most serious hindrances to the progress of these industries are: shortages of imported raw materials, together with shortages of equipment and replacement materials. This situation may become much more serious if the war

/economy

economy broadens and is prolonged, for then metals will be used for the manufacture of armaments, and civilian uses and particularly exports will suffer restrictions. The extent of such restrictions cannot yet be foreseen, but it is very likely that they will be serious. The greater scope of the domestic market and the exhaustion of reserves of new or replacement materials may give rise to very delicate situations in Argentina, affecting not only these industries, but the whole economy which they serve.

The recent development and features of the principal branches of the metallurgical industry will be briefly outlined below.

1) Iron and steel industry

Rolled steel

This heading covers the following: rolled steel, in round, square and other bars; sheets; strip and plates; L, T, U and Z shapes; and double T profiles.

Before the war, the domestic requirements for these articles were met entirely by imports. Only double T profiles had since 1908 been produced within the country. These were made in sizes from 8 to 16 gauge, to meet a certain part of Argentina's requirements, and this situation holds true today.

Realizing the economic importance of the steel industry, the Government over ten years ago adopted a series of measures which aroused considerable interest on the part of private capital; this interest increased considerably when the outbreak of the last war was foreseen, and even more when the conflict started and the traditional sources of supplies were cut off.

After 1940, the steel plants and rolling mills which exist today were installed in rapid succession, the industry having received in recent years the backing of Decree No. 5,687 of 1947 which declared it to be in the "national interest", and more recently of Decree No. 17,692/49 which in addition to confirming that the industry was in the national interest introduced adequate protective measures.

The factories have taken up chiefly the production of round, square and other iron bars, Double T and other profiles following the technical-economic advice they had received. Domestic production of sheet and strip is very small and unimportant.

Table 49 shows the expansion of production of round, square and other bars, compared with the development of imports. The bulk is accounted for by round bar (60 to 85 per cent according to the years).

/It is

It is interesting to note that the capacity of the 16 Siemens-Martin open hearth furnaces installed in the 8 large steel mills (excluding the Fabrica Militar de Aceros) is about 300 tons a charge, and the annual productive capacity of these furnaces is at present about 230,000 tons of steel.

The country's present requirements for rolled iron, distributed according to the articles which it comprises, are as follows:

	<u>Tons</u>
Round, square and other bars	220,000
Iron Plate and sheet	180,000
Flats, hoops and strip	100,000
L, T, U, V etc. shapes	60,000
Double T profiles	<u>20,000</u>
Total rolled products	<u><u>580,000</u></u>

It can be seen, against the requirements indicated, that the industry of round and other bars is the only one of any size, which covers consumption. The production of sheets, profiles and strips is small and supplies have to be imported.

Table 49 Argentina: Domestic production and imports of iron and steel  
(in bars, round, square and other shapes)  
tons

Years	Domestic production	Imports	Total Supplies	Domestic production total supplies %
1939	1,600	174,000	175,600	1
1940	4,500	166,000	170,500	3
1941	26,100	62,000	88,100	30
1942	44,000	14,000	58,000	76
1943	56,900	5,400	62,300	91
1944	85,800	3,600	89,400	96
1945	100,900	6,400	107,300	94
1946	145,000 a/	77,000	222,000	66
1947	160,000 a/	96,000	256,000	62
1948	170,000 a/	20,000 a/	190,000	89
1949	210,000 a/	110,000 a/	320,000	66

Sources: Anuarios del Comercio Exterior - Monthly Statistical Summary and private sources

a/ estimates

/Raw materials

Raw materials used

Reserves of old scrap are now very low because they were exhausted during the war period, when only about 1,000,000 tons of scrap a year were imported, whereas domestic production is estimated as not exceeding 70,000 tons a year. The stocks of scrap now held by the industry may be estimated at some 80,000 tons.

This shows how important it is for the development of the industry to be able to rely on foreign old scrap, so that stocks will not be further depleted.

It is interesting to observe the price rise in this raw material in keeping with rising demand. In 1939 the market price was between 15 and 18 pesos per ton. The present quotation, delivered to factory, is 230 pesos per ton. The present price on the world market is 40 dollars.

So that this industry can develop without difficulty at its present high rate, it has to be supplied with a sufficient quantity of old scrap. It is a wise policy not to use scrap collected within the country, and to avoid this, 150,000 tons a year should be imported of this material. After a few years of this policy, international events will indicate whether the system should be continued, or to what extent locally produced scrap should be used.

Scrap may be imported subject to licence without using foreign exchange or by means of deferred payments, at the official basic selling rate of exchange.

Some steel mills mix pig iron or fresh billets with the scrap in the bath. Domestic production of this raw material so far comes from the blast furnace installed at Zapla (Jujuy), with a capacity of 20,000 tons a year. It is proposed to raise this capacity to 70,000 tons by installing two new blast furnaces in the same province, one of these being already under construction.

The pig iron produced in Zapla is of two types: Siemens-Martin type pig and Cubilote type. Even if the production attains 20,000 tons a year (recent production was at the rate of only 18,000 tons) this would still not meet domestic requirements, estimated at 60,000 tons a year. This includes the requirements of the steel mills referred to and the requirements of the iron foundries. It should be noted that this quantity may vary according to the volume of fresh or old scrap used. For this purpose annual imports of 50,000 tons of this raw material would be needed.

/The average

The average prices of imported pig-iron per ton, delivered at factory, have been rising constantly. In 1950 Austrian scrap was bought at 475 pesos; the prices now being quoted work out, at the new exchange rate of \$7.50 to the dollar, at 570 pesos. The price of Zapla pig-iron, delivered at factory is 450 pesos.

Apart from the raw materials mentioned, this industry requires the following proportion of ferro-alloys: 5 per cent of ferro-manganese and 35 per cent of ferro-silicon.

Domestic production is minute, although it is proposed in future to produce both these alloys to meet requirements entirely, these being in the region of 4,000 tons annually.

Before the war, ferro-manganese stood at 400 pesos a ton, while now ferro-manganese imported from Chile is quoted at 1,800 pesos. Ferro-silicon cost 500 pesos/before the war; present imports from Brazil, however, cost 2,000 pesos.

As regards refractory materials used in the Siemens-Martin furnaces both for temperature and bath control purposes, those containing silicate, after progressive advances, are now manufactured entirely in the country, but this is not the case for those with a high percentage of alumina or magnesite materials, which have to be imported.

At present, stocks of imported refractory materials held by the steel mills are so low that the continued operation of the blast furnaces is in jeopardy, particularly if any unforeseen damage should occur requiring a large quantity of refractory material for repairs.

It should be pointed out that the cost of maintaining the Siemens-Martins furnaces in good condition (repair of the refractory material) accounts for about 10 per cent of the cost of rolled steel.

#### Equipment and machinery

If it is remembered that the major steel plants and rolling mills were built during the war and that there was no experience of these industries in the country, it is easy to understand why the first installations were defective, and the resulting product was costly and of poor quality. The efforts made by the manufacturers to remedy these defects with the help of Government protection yielded good results. Many establishments improved and modernized their installations, and new furnaces and rolling mills were built with the latest technical improvements.

/Accordingly,

Accordingly, modern rolling mills were introduced, as well as private generating plants, for the production of energy, cooling platforms for bars, automatic devices for charging the furnaces and for moving materials, installations for better use of scrap, high-speed mechanism for cutting and folding etc. All these improvements caused a real increase in production while at the same time improving it from the technical and economic standpoints. The shortage of foreign exchange prevented even greater improvements in these plants.

The existing establishments are at present planning new improvements (some are in process of execution), which will be carried out entirely as soon as facilities are granted for importing the necessary materials.

In this connexion it should be mentioned that experiments are being made with the deferred payment system introduced by the Banco Central; foreign suppliers oppose this system, although no definitive statement can be made concerning the results achieved.

The steel at present manufactured is generally of very good quality, comparable with that previously imported.

While the price of the steel produced is higher than the imported product, this difference has been reduced lately by the new exchange rates, which were too low in comparison with the real value of the Argentine peso (for imports of manufactured goods).

In any case, it should be recognized that the lower prices at which this material is obtained abroad were mainly due to the exchange rate being too low in view of the greater cost of wages and domestic raw materials. There is no doubt that the better standard of living of the Argentine workers has something to do with it too. Since devaluation in August 1950 these differences have been less pronounced.

For the rest, all the other factors affecting this type of production have reached degrees of skill making it comparable with foreign production from the economic point of view. The technical processes used, the increase in production noted, the industrial organization of the various existing companies and the competition between them, have made the present costs of the transformation process relatively low, and the coefficients of hourly production are good.

Future

### Future prospects

The advanced position reached by this industry as outlined above, could have been yet further improved if there had been more foreign exchange available.

Continued production at the rate achieved or with the expansion planned for the next few years for the purpose of meeting requirements for these rolled steel products, principally on the part of the construction industry, is assured, provided that there are sufficient supplies of raw material and replacements of the equipment which the industry requires.

In that case, domestic industry will be able to meet all the annual requirements for round, square and other bars, estimated at 220,000 tons altogether, as well as half the requirements for steel beams, and a small proportion of the requirements for profiles and strip, provided that the supply of materials as indicated below is assured:

- 1) 170,000 tons a year of imported scrap, to avoid using domestic production of scrap; this is wise and advisable in order to build up reserves which are seriously depleted.
- 2) If the above supplies from abroad cannot be obtained, then a minimum of 120,000 tons a year of old scrap should be imported, the domestic production of scrap being used to the full.
- 3) Moreover, some 100,000 tons of square rods should also be imported for re-rolling (in order to supply all the rolling mills and some steel plants with rolling mills whose production capacity is greater than that of the furnaces).
- 4) Until domestic production of pig-iron increases, over 60,000 tons a year of this material will have to be imported for use by the steel plants and iron foundries.
- 5) The necessary quantities should be imported of refractories with a high percentage of alumina (over 40 per cent) as well as refractories of magnesite and chrome.

Wire drawing

Wire drawing

This is an old industry which has developed greatly since the last war. Production capacity, which was 30,000 tons in 1946, is at present 120,000 tons a year, exceeding requirements, which are estimated at 80,000 tons.

Except for high carbon steel wire, the domestic industry manufactures all types (natural or crude, black annealed galvanised, for industrial uses, etc.), required by the country, and lately, modern equipment has been acquired for this purpose.

A new plant at present in process of installation will produce high carbon steel wire (for cables, springs, rods) with an immediate production capacity of 6,000 tons, later rising to 12,000 tons annually.

This industry is now suffering from a severe shortage of raw material, which consists of low carbon rods specially suited for drawing (known as wire-rods, fil machine, vergella, etc.)

This raw material is not yet being produced by domestic industry, not for lack of technical capacity but for economic reasons, since it suits the industry better to produce rods requiring less control in manufacture. Only one undertaking produces wire-rods for its own needs. However, there are rolling mills which will shortly manufacture this too.

Therefore, in order to take full advantage of the entire present capacity of Argentina's wire-drawing plants, 80,000 tons of wire-rods should be imported annually, the import of high carbon wire (over 0.4 per cent C.) being permitted for industrial uses only.

Another fundamental raw material for a large proportion of the wires manufactured is slats zinc for galvanizing.

The quality of domestic wire is similar to the imported product and is more expensive than French or Belgian (the two countries most interested in exporting wire to Argentina) because of local conditions which affect the main cost items for domestic wire. However, the new customs system and the new exchange rates have done much to reduce the differences between the national and the foreign product, although these are still not on equivalent terms.

/The wire



The wire drawing industry has applied for the benefit of Decree No. 14,630/44, relating to industries stated to be in the national interest, so that it may be protected against possible unfavourable competition with imported wire.

### Steel pipes

#### Welded

The productive capacity of Argentine plants was 20,000 tons in 1946. At present it is 180,000 tons per year. Therefore, domestic consumption estimated at 90,000 tons is amply satisfied, provided that there are supplies of strip and steel sheet which are almost entirely imported.

Two firms will shortly manufacture hot-rolled strip for their own use, so that there will still be pipe plants dependent on imported strip.

Annual requirements of strip are in the region of 100,000 tons, which will be reduced once the firms mentioned enter into production. Of the new plants for the manufacture of pipes, some can meet the most modern technical requirements.

#### Unwelded

At present these are not manufactured, being imported from the United States, Germany, the United Kingdom, France and Sweden.

The country's requirements are estimated at 30,000 to 40,000 tons a year and they are used in the petroleum industry (casing and pumping) in transporting fluids under high-pressure (up to 400 atmospheres) in mechanical constructions, railways etc.

The National Commission for the Location of Industry has authorized the use of a site at Campana, on the Paraná river, by a company with a capacity to produce 40,000 to 60,000 tons, the raw material for which would have to be imported.

### Galvanizing of sheet

This industry's development is in some respects quite different from that of the rest of the group, since it reached its maximum capacity in 1929 (115,000 tons), gradually dropping to 50,000 tons in the 1935-39 period, 12,000 in the following five years and 9,000 tons in the last five-year period.

/This decline

This decline is mainly due to lack of raw material (steel plate and hot-dipped slats zinc), and the appearance of substitutes such as asbestos-cement and aluminium roofing. Of some ten manufacturing establishments, only three are still working, and three more are in a position to recommence work always providing that they receive the necessary raw material.

Annual requirements are 60,000 tons of galvanized steel sheet (smooth and corrugated for construction, sewers and industrial uses). This production would require imports of the following raw materials, which are not at present manufactured in the country: steel plate, hot-dipped zinc, tin (this was produced in the country until lately, but this is no longer the case), ammonium chloride and caldrons.

The present position of this industry is very serious, and although it is in a position to supply domestic requirements entirely, its installations are nevertheless practically at a standstill.

## 2. Non-ferrous metals industries

### Zinc

The country's requirements are in the region of 13,000 tons a year, of which some 30 per cent correspond to electrolytic zinc (99.99 purity) and the remainder to best quality hot dipped zinc (Primo Westorn).

There is an electrolytic zinc plant at Zarate, Province of Buenos Aires, which has been operating since 1942. It uses concentrates of blende (sulphide of zinc) derived from the mining group of Aguilar (Jujuy province). Production of blende concentrates far exceed domestic requirements, and it has been exported for a long time back in considerable quantities. This plant's capacity is some 4,000 tons a year.

The Direccion General de Fabricaciones Militares has installed another electrolytic zinc plant in Rio Tercero, Cordoba, which commenced operation in 1948. It has a capacity of 200 tons a month. Its production at present is 1,000 tons, which is not traded on the domestic market, being used for military reserves. Total production of electrolytic zinc in 1949 was 3,000 tons.

/A new plant

A new plant for producing hot dipped zinc in Comodoro Rivadavia is due to commence operation at once. It will use zinc concentrates (blende) from Mina Aguilar, Jujuy, previously desulphurised in Fray Luis Beltrán, Province of Santa Fe. The production capacity of this plant will gradually rise to 10,000 tons a year of electro-thermic zinc, Prime Western 98% zinc content. This, together with production of electrolytic zinc, will entirely meet domestic requirements.

As regards costs, it is too soon to venture an opinion; it is considered that the Comodoro Rivadavia plant will have the advantage of cheap energy (natural gas) in the proximity, although it is difficult for its costs to be lower than those of producing markets such as the United States, Belgium etc. In future it will use blende from the mines of Lago Fontana, in the southern Cordillera, at the same latitude as Comodoro Rivadavia.

#### Lead

Lead has been produced in Argentina for many years, either in metallurgy or in manufacturing. An international company provides the greater part of production (80 per cent).

Production gradually increased to a peak of 23,000 tons in 1943. Present requirements of this metal are about 30,000 tons annually.

The smelting plants are installed at Puerto Vilelas (Chaco), Mercedes, Tablada and Avellaneda, the capacity of their installations exceeding requirements.

The raw material used are galena concentrates (sulphide of lead) the greater part of which is obtained from the mines in the province of Jujuy.

It was estimated that production in 1950 would barely amount to 18,000 tons. The principal drawbacks causing production to decline were the reduction in consignments of concentrates sent to the foundries due to the lack of suitable transport (trucks and railway wagons), to interruptions in traffic during the rainy season, to non-replacement of mining, milling and flotation equipment.

For nearly two years very few imports have been authorized and accordingly the problem has become so acute that if the replacements and other parts for the mining installations are not supplied, activity in the mines may possibly be brought to a standstill very shortly. Shortages of other productive

/elements

elements have also had a bearing, such as dynamite, wicks, caps and reagents (cyanide of sodium), foundry coke, retorts and refractory bricks with a high percentage of alumina.

These conditions made it necessary to import pig lead, the Instituto Argentina para la Promoción del Intercambio (I.A.P.I.) having purchased a consignment of 4,500 tons from Japan, which have already been distributed among manufacturers of piping and accessories. It will be necessary to continue making such purchases until production increases once more.

Future prospects for the production of pig lead depends on whether the industry overcomes the difficulties mentioned, and is granted the necessary foreign exchange. Purchases of lead abroad are really not economic for the country, since with a lesser outlay of foreign exchange, the annual needs of 30,000 tons a year could be produced domestically.

#### Tin

Requirements are about 2,000 tons a year. Metallic tin has been produced since 1935, reaching the peak figure in 1938 with 1,400 tons. Since then production declined to slightly over 200 tons in 1948, and similar quantities for 1949 and 1950.

This reduction is mainly due to the decline of the only important deposits worked, located in the region of Pircas (Jujuy) and also to the wear and tear of the manufacturing installations, which need to be completely modernized.

In these circumstances, tin requirements have to be largely imported, until the mining survey (which ought to be made) succeeds in discovering new large deposits, when domestic production will once more reach the former volume of output.

#### Aluminium

Aluminium in ingots is not produced because no bauxite deposits have yet been discovered and because of the shortage of cheap electric energy. On the other hand, the manufacture of aluminium has developed remarkably in recent times, to such an extent that consumption of aluminium ingots has risen from 1,500 or 2,000 tons a year to 7,000 tons in 1949, present requirements being about 10,000 tons a year.

/Aluminium

Aluminium ingots of 99.5 per cent purity are needed for the rolling industry. Aluminium rolling mills have increased greatly in number in the last three years, there being now over 30 rolling plants, of which 4 or 5 are particularly important. In addition, two or three important rolling plants have commenced activities lately, producing smooth and corrugated sheets, aluminium foil for wrapping perishable products, kitchen utensils, etc. These establishments will profit from the advantages and safeguards granted under Decree No. 23,217/46, which established discriminatory treatment for the purposes of customs duties in direct proportion to the degree of manufacture.

Similarly, extruding equipment has recently been imported which manufactures certain aluminium profiles; machinery for drawing aluminium wire has also been imported. In addition, presses are being installed to manufacture shapes for construction, by the extrusion process.

Apart from these rolling plants there are a large number of smaller workshops which use aluminium scrap and waste for smelting. There are several new establishments which own Triulzi presses for dye-casting.

At present the country faces a great shortage of aluminium, although Government agencies have imported some 6,000 tons. Until lately the market price of aluminium ingots was 2 pesos a kilo, and at present the price is 8 pesos due to the shortage; scrap fetches 5 pesos and the price is still rising.

The new uses for aluminium as a substitute for other materials leads to the assumption that this industry will develop even more, provided that it can rely on the supplies of the necessary raw material.

### Copper

Hitherto, although experiments have been made to produce copper domestically, no practical results have been achieved.

The manufacture of copper, which is very advanced, has to be supplied with copper wire-bars, billets and cakes, from abroad, requirements being around 20,000 tons a year.

Copper and its principal alloys, brass and bronze, is rolled and drawn in various well-equipped establishments where sheet, strip, profiles, bars and wires, ordinary and copper-clad cables, and electric conductors are made, all being of very good quality.

The copper supply position is now very critical since it has not recently been possible to make any large purchases abroad.

CHAPTER IV

INDUSTRY AND THE MARKET

Introduction

A prominent and usually decisive role in the combination of factors encouraging investment and production is played by the prospect of satisfying a present or foreseeable future demand. Present demand, which is reflected in sustained prices and ample margins, has undoubtedly been the strongest immediate incentive for Argentine industrial development. The factor of expected future demand, where it exists, does not play so important a part as would be desirable in a country which is being industrialized, where the absence of a well-developed "industrial conscience" means that there is also little interest in long-term plans.

The market for the sale of finished products should be accompanied by the existence and parallel development of a market for buying raw materials, energy and capital goods.

The object, then, of this chapter is to analyze these two industrial markets, for sale and purchase, both at home and abroad. The Argentine domestic market for the sale of industrial products has always been attractive owing to the high standard of living of the population. This standard of living, one of the best in the world according to Collin Clark (The Economics of 1960), indicates a high demand for industrial products.

The report prepared by the League of Nations entitled "Industrialization and Foreign Trade" demonstrates that the consumption of industrial products rises pari passu with the standard of living. An analysis of the figures published by the National Resources Committee in "Family Expenditures in the United States", leads to the conclusion that, comparing the consumption of families of different standards of living, the consumption of manufactured goods, other than foodstuffs, was 10 times greater for those with incomes of 3,400 dollars than for those with only 310, whereas consumption of foodstuffs was only 3.5 times higher and other expenditures 5.6 times greater; and that, moreover, possible savings in families with better incomes were largely invested in industrial capital goods.

This is normal and logical and, is also observed in comparing social groups. Taking production and consumption figures from the source already mentioned, together with those covering income per inhabitant, from Collin Clark, this ratio between the industrial market and the standard of living is amply

/confirmed.

confirmed. In the case of Argentina, with an annual per capita income of 446 international units at that time (1925-34), the corresponding annual consumption of industrial products would be approximately between 150 and 200 dollars (at the dollar's purchasing power in the years 1926-1929) as against 222 in the three principal British Dominions, whose economy most closely resembles that of Argentina.

Table 51      Argentina:      Industrial markets and standards of living

Countries	Per Inhabitant		Consumption <u>1/</u>	Income per inhabitant <u>2/</u>
	Industrial production in 1926-29	Foreign trade		
United States	262	- 8	254	590
3 British Dominions <u>3/</u>	170	- 52	222	525
United Kingdom	154	- 42	112	502
Germany	134	- 23	111	292
France	121	- 25	96	310
Italy	62	- 2	60	152
Japan	31	- 3	28	102
Russia	21	- 1	22	95
India and China	2	- 1	3	53

Source: Collin Clark, "The Economics of 1960"

1/ Excluding foodstuffs. In dollars with the purchasing power of 1926-29. "Industrialisation in foreign trade".

2/ International units. Dollars with purchasing power of 1925-34.

3/ Canada, Australia and New Zealand.

Supplies from abroad were always very important, particularly supplies of capital goods and semi-durable articles (textiles, timbers, rubber goods etc.) Domestic production, which paid preferential attention to the supply of foodstuffs or certain types of textiles of average or inferior quality, made use of by-products or supplied services (metallurgical workshops, the garment trade, electricity or gas). This is only a very general observation, since even before 1939 there were some important industries: leather, furniture, paper, electrical appliances, cement, medicines and certain chemical products, petroleum refining and tyres.

/When

When imports were reduced because of the relative rise in prices, due to the deterioration in the terms of trade or to exchange control, prior to the isolation caused by the war, numerous establishments were installed for the production of goods which could not at that time be suitably bought abroad. However, when the war started, far-reaching changes occurred in the market structure. Demand grew through the stimulus of greater exports and greater domestic activity, while the proportion of industrialized exports also increased. This stimulus was offset by the difficulties encountered during those years in the maintenance of equipment and in the foreign supply of raw materials.

The market underwent a further change in size and composition when the markets were opened between the end of 1945 and the middle of 1948. Purchases abroad of many scarce and restricted goods expanded; at the same time sales abroad declined through the contraction of those markets, this being accompanied by an increase in the monetary cost of Argentine goods in the buying markets, and by restriction of exports.

The export ban was due to a desire to assure domestic consumption, which was outstripping production. Supplying the consumer was considered more important than the long term need to ensure markets or to encourage industrial activities. The heavy imports and the export restrictions during those years did not reach the point of saturating the domestic market, because of the great demand which had been unsatisfied during several years when supplies were not available.

Domestic per capita consumption of industrial products remained stationary between the years 1937 and 1943 inclusive, since reduced imports were offset by increased production. Supplies increased at the same rate (8 per cent in 5 years) as <sup>the</sup> population. In the following years both factors expanded imports particularly so from 1946 to 1948. That is why supplies increased by almost 60 per cent in the other five-year period (1943 to 1948), while the population increased by 7 per cent. Therefore, the supply per inhabitant rose considerably, by 45 per cent.

The trend changed sharply in 1949, and both sources of supply declined; this caused a 7 per cent drop in the proportion per inhabitant and influenced the markedly inflationary trend of that year. The diminishing rate of supply of industrial products continued in 1950. Although more was exported and therefore more foreign exchange was obtained, including the so-called "free" exchange, it

/was preferred



was preferred to keep import quotas restricted to ensure a favourable trade balance. The changes introduced in the exchange control system in August did not result in an increase in imports until 1951.

The figures indicated above do not express supplies to the public, since it is well known that there was a decline in stocks during the period.

Table 52      Argentina:      Market supplies of industrial products

Quantum  
Indices: 1937-39 = 100

Years	Production	Imports a/	Total b/	Inhabitants c/	Per inhabitant
1937	95.7	109.0	97	98	99
1938	..	104.0	..	100	..
1939	104.3	90.0	103	102	101
1940	..	78.1	..	103	..
1941	109.3	61.8	104	104	100
1942	..	49.4	..	106	..
1943	116.6	32.8	108	107	101
1944	130.8	32.3	121	108	112
1945	130.8	37.4	121	110	110
1946	146.0	84.5	139	112	124
1947	167.2	161.0	167	114	146
1948	170.4	175.9	171	116	147
1949	165.3	138.5	162	118	137
1950	..	..	..	121	..

Source: Basic data from the Sintesis Estadística Mensual de la República Argentina.

a/ Taken from the tariff values.

b/ Estimate based on proportions of production and imports which in 1943 accounted, respectively, for 89 and 11 per cent of supplies.

c/ On 1 January.

/The structure

The structure of demand has also varied, as is usual when the standard of living changes. The demand for durable and semi-durable goods has increased, as shown by the variation of each in the indices. In this case the transformation was accentuated by the intervention of a social and political factor. Price controls, which first and foremost affect foodstuffs and beverages, tobacco and textiles, were revised several times to keep pace with price increases. Yet, in many cases dislocations occurred between the real cost and the permitted limits or margins, and in the case of some products, the limits were kept in force for months while costs continued to increase. This policy offered no incentive for the investment of new capital or the re-investment of profits; on the contrary, it was a disincentive. The maintenance of low prices ought to have led to an increase in the consumption of the articles affected, but the result was the opposite because supply was reduced or remained unchanged. During 1949 and 1950 greater reductions occurred in the volume of production of non-durable goods (which are those subject to controls) than in durables; a similar development took place in imports. And among the producers of non-durable goods, controlled industries such as textiles and garment manufacture, leather and rubber were affected most. However industries of durable goods or even non-durables free from price controls, such as paper and cardboard, chemical products, timber and electric machinery and apparatus, maintained or even raised their level. This was foreseeable and logical, and could not be offset by greater supplies from abroad, since the shortage of foreign exchange also dictated a corresponding (necessary and prudent) preference for capital goods, which are not usually controlled.

#### Foreign competition

The events the influence of which on the structural transformation of industry has been analyzed, naturally led to a change in the composition of imports, either through exchange control which affected the selection, or else through the demand of a changed market.

**Table 53**      **Argentina:**      **Composition of imports according to groups of products**  
(as percentages of total imports)

Groups of Products	1937	1943	1947	1948	1949	1950 <sup>a/</sup>
<u>Durable goods</u>	<u>40.5</u>	<u>29.4</u>	<u>50.4</u>	<u>55.8</u>	<u>51.3</u>	<u>52.9</u>
timber and timber products	5.1	10.5	5.5	5.1	6.7	7.1
Iron and iron products	15.1	6.0	12.4	13.6	16.3	17.8
Metals	5.1	4.5	5.1	5.1	3.8	5.4
Machinery and vehicles	12.6	4.0	25.2	29.2	21.5	20.0
Stone, glasses etc.	2.6	4.4	2.2	2.8	3.0	2.6
<u>Non-durable goods</u>	<u>50.1</u>	<u>61.0</u>	<u>42.2</u>	<u>33.0</u>	<u>38.2</u>	<u>35.1</u>
Foodstuffs	9.1	7.2	3.7	4.2	3.2	3.9
Tobacco	0.7	1.9	0.7	0.7	0.6	0.5
Beverages	0.6	0.8	0.4	0.2	0.2	0.2
Textiles	23.0	23.7	16.0	11.1	18.7	13.2
Chemical products	5.7	11.3	5.9	5.7	4.3	6.7
Paper and cardboard	4.1	9.5	4.3	3.3	4.3	3.6
Rubber	1.2	0.6	2.8	0.8	0.5	0.9
Others	5.7	6.0	8.4	7.0	6.4	6.1
<u>Fuels</u>	<u>9.4</u>	<u>9.6</u>	<u>7.4</u>	<u>11.2</u>	<u>10.5</u>	<u>12.0</u>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: As below.

<sup>a/</sup> Estimates based on the first 8 months.

**Table 54**      **Argentina:**      **Tariff values of imports according to groups of products**  
Millions of Argentine pesos

Groups of Products	1937	1943	1947	1948	1949
<u>Durable goods</u>	<u>553.2</u>	<u>114.2</u>	<u>895.0</u>	<u>1,139.2</u>	<u>779.7</u>
Timber and timber products	59.9	34.8	64.0	67.2	67.2
Iron and iron products	181.7	17.5	195.4	220.4	209.0
Metals	71.8	25.5	130.3	141.9	79.5
Machinery and vehicles	173.6	15.9	461.6	652.1	381.9
stone, glasses etc.	46.2	20.5	43.7	57.6	42.1
<u>Non-durable goods</u>	<u>761.8</u>	<u>286.9</u>	<u>1,009.7</u>	<u>804.6</u>	<u>724.6</u>
Foodstuffs	113.9	47.4	65.7	84.4	46.4
Tobaccos	12.7	13.1	13.2	14.9	10.2
Beverages	4.4	1.9	5.7	2.6	1.8
Textiles	322.2	83.5	234.9	183.0	201.6
Chemical products	97.8	70.1	178.3	205.5	129.6
Paper and cardboard	79.6	44.2	93.0	74.0	74.0
Rubber	44.6	3.4	177.8	33.1	35.8
Others	86.6	23.3	241.1	207.1	225.1
<u>Fuels</u>	<u>220.1</u>	<u>51.7</u>	<u>319.2</u>	<u>486.0</u>	<u>410.5</u>
<b>Total</b>	<b>1,515.1</b>	<b>452.8</b>	<b>2,223.9</b>	<b>2,429.8</b>	<b>1,914.8</b>

Source: Statistical yearbooks and bulletins relating to foreign trade

Note: As the tariff values are fixed, they may be taken as an expression of quantum  
/During

During the war years, not only did the volume of imports decline to almost a quarter of the prewar level, as a whole, but the volume of durable goods, needed for industrialization, declined in greater proportion (to a fifth). Imports of iron and machinery amounted to only a tenth of their previous volume. Goods partly obtained from American countries, such as timber, certain metals and construction materials, suffered smaller reductions. Imports of non-durable goods, apart from rubber and textiles, suffered much less. As a whole they fell to 37 per cent of the earlier level. The proportion of durable goods in the value of imports fell from 40 per cent in 1937 to 29 per cent in 1943, iron from 15 to 6 per cent, and machinery from 13 to 4 per cent, while the proportions of non-durables increased.

With the end of the war came the revival in imports. In 1947 the proportion of durable goods rose to 50 per cent, that is, a higher level than before the war; among these machinery and vehicles were particularly prominent, amounting to one fourth of the total value of imports.

The volume of imports increased fivefold in 1947 as compared with 1943, imports of durables being 8 times and non-durables 4 times greater. This was a period of equipping industry. By 1947 the volume of total imports rose by 50 per cent over the prewar period, durables rising by 68 per cent and non-durables by 32 per cent. In other words, the situation so far as the composition of imports is concerned differs from the prewar situation since durable goods, typical of more industrialized countries, have become more prominent both in value and volume.

It may be observed that this situation becomes more evident if the import levels of 1947 are compared with those of 1943 from the point of view of the degree of industrialization and competition of articles similar to those produced by domestic industry. There is clear evidence of a definite Government policy of controlling imports, favouring capital goods and raw materials, or semi-manufactured products for industrial uses.

In the following three years, 1948 to 1950, these tendencies became more marked. The proportion of durable goods was 56 per cent in 1948, 51 per cent in 1949 and 53 per cent in 1950 (8 months), the proportion of iron having increased whereas that for machinery and vehicles fell. Industrial saturation led to exchange restrictions for industrial machinery. The high proportion of fuels (12 per cent) is also clearly evident.

/Table 55



Table 55 (continued) Argentina: Imports of certain goods according to their connexion with industry

Indices: 1937-39 = 100  
 Quantities

Articles	1937	1938	1939	1947	1948	1949
<u>II. Competitive raw materials and semi-manufactured products</u>						
Synthetic fibre yarns	157.6	66.7	72.7	87.9	48.5	151.5
Woollen yarns	100.0	100.0	128.6	214.3	300.0	542.9
Raw cotton yarns	111.1	116.7	77.8	316.7	233.3	283.3
Sodium carbonate	95.7	74.3	129.7	205.3	208.0	115.3
Common unlined cardboard	109.4	96.4	94.9	155.1	141.3	207.2
Regular, fire-lined cardboard	126.7	103.3	73.3	216.7	243.3	436.7
Bristol fine board	105.0	95.0	100.0	150.0	300.0	180.0
Plywoods	115.7	95.6	88.7	105.5	4.1	80.3
Paste for paper factories	100.2	89.3	110.5	138.7	105.4	162.2
Cedar logs	89.5	86.6	124.4	659.9	520.9	680.2
Hardwood logs	100.4	108.3	91.3	297.4	652.0	629.7
Hardwood beams	100.1	83.0	116.8	52.9	39.4	56.4
Unplaned "rauli"	119.7	108.2	72.1	208.3	486.8	607.6
Unwrought iron, profiles	141.3	78.1	80.7	96.4	90.2	81.4
Iron rods	114.8	71.9	114.1	115.6	390.6	268.0
Steel fencing wire	136.7	82.0	81.2	130.5	129.7	125.8
Ungalvanized steel wire	144.1	79.1	76.4	280.8	265.0	215.5
Galvanized steel or iron wire	139.5	76.2	84.3	105.2	77.3	64.7
Copper wire and cables for electricity	84.4	118.3	97.2	221.9	584.4	320.0
Brass pumps and accessories	71.6	79.6	97.1	128.2	148.0	77.4
Tin in bars or ingots	90.9	84.6	124.5	108.1	204.7	778
Lead in bars or ingots	90.0	147.9	62.1	2,803.5	3,970.5	2,774.3
Zinc in ingots or bars	119.9	89.6	90.5	119.3	159.3	147.4
Zinc in smooth sheets	104.3	104.0	91.8	129.2	154.0	99.9
Broomsticks	97.5	96.7	105.0	109.1	120.7	75.2

/Table 55 (continued)

Table 55 (continued) Argentina: Imports of certain goods according to their connexion with industryIndices: 1937-39 = 100  
Quantities

Articles	1937	1938	1939	1947	1948	1949
<u>III. Non-competitive raw materials and semi-manufactured products</u>						
Natural silk yarns	91.2	91.8	117.1	71.8	70.0	90.0
Fabrics of jute, pita or hemp	108.2	114.6	76.6	44.2	16.6	8.7
Linen or mixed fabrics	130.1	84.4	85.5	162.2	63.0	32.4
Flax yarn	105.8	96.5	97.7	58.1	9.2	3.3
Jute yarns for braids	167.6	75.5	57.4	31.9	11.3	2.9
Untarred rope	152.7	78.4	68.9	153.7	62.1	8.4
Burlap	104.7	113.9	81.4	11.5	83.8	88.4
Anilines dyes	108.7	68.1	123.3	147.5	168.8	143.3
Lampblack	93.3	95.3	111.4	277.8	152.5	174.6
Sodium hydrate	97.1	85.4	117.9	100.5	248.1	67.4
Newsprint	114.8	85.9	99.3	95.7	82.3	79.6
Cigarette paper	93.9	108.2	97.9	110.6	60.3	66.9
Walnut veneer	99.7	111.7	91.3	86.3	35.1	16.4
Spruce pine	103.7	94.0	102.3	55.7	66.7	78.0
Cork sheets	105.1	85.9	109.6	326.3	357.5	436.9
Iron ingots for smelting	114.8	62.1	122.9	143.4	250.2	181.3
Rails for railways or trams	148.5	89.9	61.6	139.9	303.7	184.3
Hoops and grooved sheets	111.1	768.9	100.4	166.2	138.7	147.1
Unwrought iron sheets	135.7	72.0	92.2	134.9	166.1	124.2
Brass or yellow metal	99.5	90.7	109.9	195.2	147.3	95.1
Electrolytic copper	92.0	103.7	104.3	380.5	182.8	94.4
Aluminium in ingots	90.7	105.6	103.7	605.6	1,373.2	843.0
Aluminium in sheets	138.0	102.1	59.8	1,456.8	1,523.6	673.3
Unworked tinplate	118.3	81.6	100.1	113.5	112.9	51.0
Asbestos board or powder	60.8	66.6	172.6	437.2	465.4	357.7
Natural rubber	107.1	85.8	107.1	318.2	19.4	80.9
Rubber yarn for the loom	133.9	77.5	88.4	130.3	161.5	161.9
<u>IV. Non-competitive finished products</u>						
Wheels and axles not included in the tariff	98.6	112.5	88.9	93.4	113.0	112.6
Ball bearings	110.2	112.2	77.7	272.4	406.5	1,412.9
Machines and motors	128.0	110.8	61.3	204.0	343.4	216.7
Autcmobiles for passenger transport	100.7	125.3	74.3	91.0	18.4	5.2
Delivery trucks and vans	60.5	157.9	84.2	847.4	513.2	71.0
Locomotive accessories and spares	127.6	118.1	54.3	41.9	42.2	156.2
Ladies' or gentlemen's watches	102.1	103.8	94.0	144.5	80.2	10.4
Blocks of refractory earth	117.8	103.4	78.8	86.2	120.3	48.2
Fuels and lubricants	98.7	100.0	101.3	101.8	141.1	114.8

Source: Statistical yearbooks and bulletins relating to foreign trade,  
/A detailed

A detailed study of Table 55 shows that imports of machinery in 1949, while double those of 1937, experienced a severe reduction in relation to 1948, the year in which machinery imports were four times more than before the war. Purchases of iron and metals remained at slightly lower levels, as well as timber and construction materials.

As regards non-durable goods, it will be seen that in 1948 and 1949, the 1937 level was maintained, in spite of the fact that there was a reduction in the group as a whole. This is two-thirds of the prewar level. Reductions occurred in foodstuffs, beverages, tobacco and paper, that is typical consumer goods, whereas industrial raw materials, chemical products and sundries increased.

#### Exports of industrial goods

The development of exports of industrial products has been interesting. After a sustained increase until 1943, particularly for products requiring more labour and greater skill, there was a rapid contraction, which has not ended yet.

The question is: what governed those exports, even exports of goods which showed no surplus? The answer is that they are affected by foreign as well as by domestic factors. The shortage of warehouses and export restrictions on the part of the traditional producing countries created a special demand from those under-developed countries with insufficient industrial capacity. The countries at war, engaged in producing arms and training soldiers, in turn became heavy purchasers. They preferred not to use their equipment, men and energy in manufacturing less essential goods, and bought them abroad. Thus they spent gold, credit and investments abroad to pay for these imports.

That was how Argentina came to step up the industrial conversion of its raw materials, so that by 1944 the proportion added by industry to the value of exported products had risen to as much as 39 per cent, as against less than 20 per cent before the war (Table 56).

/Table 56



Table 56      Argentina:      Composition of exports according to degree of processing  
(as percentages of total exports)

Years	Raw Materials	Manufactured products				Grand total of exports
		Primaries <u>a/</u>	Semi-manufactured <u>b/</u>	Finished <u>c/</u>	Industrialized	
1937	76.4	21.3	1.8	0.5	23.6	2,311
1938	63.1	33.2	2.6	1.1	36.9	1,400
1939	63.9	32.2	3.0	0.9	36.1	1,573
1940	61.2	31.6	5.2	2.0	38.8	1,428
1941	44.1	43.4	7.9	4.6	55.9	1,465
1942	31.7	50.7	10.8	6.8	68.3	1,789
1943	31.4	44.2	14.0	10.4	68.6	2,192
1944	31.6	50.7	8.0	9.7	68.4	2,360
1945	37.9	41.6	10.5	10.0	62.1	2,498
1946	63.8	15.8	16.7	3.7	36.2	3,973
1947	66.7	16.2	15.3	1.8	33.3	5,505
1948	76.1	15.6	7.4	1.0	23.9	5,542
1949	78.1	13.4	7.9	0.6	21.9	3,717

Source: Statistical yearbooks and bulletins relating to foreign trade.

- a/ Covers the following products: frozen, salted, and canned meats; powdered, condensed and evaporated milk, butter, cheese and casein; fats and tallow; flours; oilseed residues and cakes; cotton fibre and linters; petroleum products; sugar.
- b/ Covers the following products: tanned leathers; washed and combed wool; metals in ingots or bars; cotton, wool and silk yarns; piece fabrics of cotton, wool and silk; animal and vegetable fats for industrial use; unwrought iron and steel, etc.
- c/ Covers the following products: fabrics in other forms and garments; essences, perfumes and hygiene and toilet articles; dyes, paints, varnishes and inks; chemical and pharmaceutical substances and products for industrial or medicinal use; paper, cardboard and their appliances; wood and wood products; wrought iron; iron and steel goods; machines and motors in general; vehicles and their spares; miscellaneous metal goods; physical, optical and mathematical instruments and apparatus.

Livestock products used to be traditionally those which accounted for the largest proportion of industrial effort in absolute quantities. Out of a total value of 270 million pesos, added to the 1,573 million pesos of goods exported in 1939, 150 millions were accounted for by livestock products. But as the events mentioned above occurred, numerous processed products appeared on the export market, such as oils, until early 1943 (since in the following two years

/exports

exports were prohibited, the oils being used for fuels), washed wool, combed wool tops and various fabrics, and leather goods.

Table 57      Argentina:      The role of industry in export

Years	Total value of exports		Value added by industry to exports			Total value added by industry		Percentage of value added by exports
1939	1,573.2	100.0	270.0	100.0	17.2	1,920.0	100.0	14.1
1940	1,427.6	90.8	289.0	107.0	20.2	1,960.2	99.5	14.7
1941	1,464.6	93.1	462.1	171.0	31.6	2,170.0	113.8	21.3
1942	1,789.0	113.7	669.5	248.0	37.4	2,280.0	116.9	29.4
1943	2,192.3	139.4	786.2	291.2	35.9	2,320.0	113.1	33.9
1944	2,360.4	150.0	922.4	341.6	39.1	2,460.0	123.2	39.1
1945	2,497.8	158.8	900.2	333.4	36.0	2,570.0	116.6	35.0
1946	3,973.1	252.6	1,464.3	542.3	36.9	2,600.0	117.8	56.3
1947	5,504.9	350.0	1,804.4	668.3	32.8	2,810.0	126.8	64.2

Source: Memoria of the Banco de Crédito Industrial Argentino, 1948.

Although the value of industrial products continued to increase in the following years, there was no increase in quantity or diversification. The exports of oils and derivatives are particularly remarkable, this being due to Government sales policies as applied through IAPI. By this means it was possible to keep the factories busy which had been installed with official assistance between 1941 and 1944/<sup>and</sup> which had helped to solve the fuel problem during those years. Sales of oils dropped severely in 1949 as a result of the resistance of the buying countries to oil purchases, since they preferred to make their purchases in the form of seeds, and because prices were too high owing to the unsuitable exchange rates. Shipments were renewed after August 1949 and continued actively during 1950

In the other industrial branches the exports reached their peaks in volume in the years 1943 to 1945. Many of these lost their markets afterwards, because some of the factors which had stimulated these disappeared. Products of European or United States industry reappeared on the market, trade channels were re-established, and the countries which had been buying Argentine manufactures diverted their trade towards those other countries which purchased their foodstuffs and raw materials. Costs of Argentine products rose in terms of domestic currency.

/As the

As the exchange rates were not modified, there came a time when in many markets these products could not compete.

This situation continued until 1950. The modified exchange rates introduced in August implied a real devaluation of the peso vis-a-vis other currencies, since costs were brought into line with those of other producing countries. Accordingly it is reasonable to hope for better possibilities for the export of certain industrialized products.

## CHAPTER V ARGENTINE INDUSTRIAL POLICY

### Types of measures

The measures which have been adopted by the Argentine Government since before the end of the war and which represent the first steps to carry into effect a vigorous policy of industrial development, have covered various fields and have been of various types, although the basic objective has been to increase the importance of industry relative to other productive activities.

The measures cannot be grouped in clear and well-defined categories, as many of them are broad in scope or deal with a number of aspects simultaneously. They can, however, be classified as follows in accordance with their most important feature:

- (a) Measures relating to international competition or supplies.
  - 1. Encouragement and protection of industries of national importance
  - 2. Customs
  - 3. Exchange control
  - 4. Trade agreements
- (b) Measures concerned with financial problems.
  - 1. Bank credit
  - 2. Collateral credit and pre-registration of mortgages
  - 3. Fiscal policy
  - 4. Regulation of the securities market
  - 5. Development of the provinces
- (c) Measures concerned with manpower.
  - 1. Immigration
  - 2. Vocational training
  - 3. Technical Research
- (d) Measures dealing with various economic aspects.
  - 1. Freight charges
  - 2. Use of energy
  - 3. Price control and control of supplies
  - 4. System of tenders for official contracts
  - 5. Special regulations for development
  - 6. Legal regulations governing mixed companies

/(e) Measures

- (e) Measures to facilitate the establishment of foreign industries.
- (f) Direct State action.
  - 1. Work of the Directorate-General of Military Manufactures
  - 2. Mixed companies for military manufactures
  - 3. Factories of the National Directorate of State Industries
- (g) Administrative organization of the State.
  - 1. Organs for research, advisory services, control and planning
  - 2. Executive agencies
- (h) Planning.
  - 1. Five-year Plan
  - 2. National Steel Plan

#### General survey

All the measures include positive aspects but, where necessary, certain measures having a negative effect will be mentioned, to avoid separating them from their context. The most conspicuous are those relating to international competition, a fact that is not surprising since measures to eliminate foreign competition or to anticipate its appearance are decisive at all times and especially in the early years of industrial development. In a country with no industrial background, with the characteristics outlined in the introduction, and for the reasons then stated, it was obvious that the resumption of international trade might mean the lasting ruin of many industries.

Although industrialists and supporters of industrialization had consistently demanded the revision of the tariff as a sine qua non of protection, exchange control had come into general use in Argentina as a form of protection which was much more effective because of its flexibility in enabling governments -- or rather the executive -- to avoid the legal barriers which traditionally ensured the rigidity of the customs system, either in the form of legislation reserving to the legislature the right to change it, or of long-term international agreements, based on the adoption of the most-favoured-nation clause, or other more specific commitments. Adopted in 1933 and subsequently modified in the light of experience and changing circumstances, exchange control constituted a most effective instrument for the regulation of competition as well as for balancing the supply and demand

/of foreign

of foreign currency as a whole or by individual countries. Prior to 1943, the decisions which had necessarily to be made in order to balance the supply and demand of foreign exchange were aimed at preventing the importation of non-essential consumer goods or goods already produced in Argentina, in order to give preference to more essential products and capital goods. The measures provided effective protection but had no theoretical foundation and consequently lacked continuity; they merely reflected necessary and temporary solutions of the exchange problem. Exchange control was also used to facilitate the diversification of exports by means of more favourable rates of exchange for less commonly exported products which were, in most cases, goods having undergone some processing. In this case, the object was to increase the supply of foreign exchange, but at the same time the competitive position of Argentine industrial products on the international market was strengthened.

Although the tariff gradually lost practical importance as an instrument of economic policy, it was necessary to stabilize the margin of protection for the future. The two chief measures taken apart from a number of supplementary ones were the anti-dumping law, or Act for the development and protection of industry, of 1944 and the very recent complete reorganization of the customs system of August 1950, which will be analysed below.

Use was also made of commercial agreements, although, as we shall see, the policy varied, and of the government trading agency, the Instituto Argentino de Promoción del Intercambio (IAPI) with its bulk purchases and sales.

The industrial manpower problem was also tackled, although not in the comprehensive and decisive manner required. The selection of skilled labour for immigration was an obvious measure. An important place has been given to apprenticeship and vocational guidance, with the establishment of a special Board, the provision of ample funds, the establishment of many schools and the statutory regulation of employment of young persons.

With regard to the internal organization of industry, mention should be made of the establishment of the Instituto Tecnológico Nacional which was intended to facilitate the qualitative improvement of production, but has not yet fulfilled its purpose owing to the shortage of funds and staff.

/The nationalization

The nationalization of the railways will facilitate the framing of a freight rates policy, both for the railways alone and for the railways combined with road and river transport (the latter has also been taken over by the State as a public service), designed to encourage the location of industry in the interior of the country, which is hampered by the system at present in force.

Lastly, mention should be made, because of its influence on industrialization, of the supply and price control policy carried out throughout the war period, but strengthened after 1946 and particularly in 1949 and 1950. The insistence on the reduction of profit margins and particularly the astonishing lack of uniformity of the criteria applicable to the various industries, as well as the freedom enjoyed by manufacturers of non-essential goods as compared with the control imposed on the more important industries have tended to counteract the optimism and enthusiasm engendered by increasingly concrete achievements and a positive industrial policy.

The measures concerned with the financial problems of industry, both in relation to bank credits and to fiscal policy, and aimed at facilitating the building up of reserves, are noted below in order of importance. Here too, some measures have had the effect of injuring rather than of encouraging industrial producers.

The establishment of the Banco de Crédito Industrial Argentino is one of the most significant achievements of Argentine industrial policy. Provision was made for the furnishing of long-term credit, which the official and private banks had been prohibited from offering under the Banks Act (No. 12155) of 1935 in order to ensure the liquidity of deposits. As both tradition and circumstances opposed the granting of industrial credit or private financing, the Bank filled an obvious need. The complete reorganization of the banking system in 1946 was also on lines favourable to industrialization.

In the case of fiscal policy, the adverse effect of the continuous increases in taxes and other fiscal barriers have outweighed the favourable effects of the timid changes in the tax laws designed to encourage or to enforce the building-up of reserves. In a prolonged and violent period of inflation, it has been impossible to build up reserves for working capital and for replacements. A serious problem is being created for the future when re-equipment becomes necessary.

/With regard

With regard to the construction of factories, government action for the encouragement of industrialization has been reflected in the installation of numerous establishments, some government-owned and others owned jointly with private capital, including some of the highest importance, and in the grouping together of the factories covered by the ex-enemy property regulations in order to maintain them in operation and co-ordinate their production.

Research, advisory, control and development agencies have been set up to provide an administrative structure capable of carrying out the important and responsible functions entailed by the new industrial policy. These include: the Directorate-General of Military Manufactures, the Directorate-General of Industries, the National Post-War Council, the Secretariat (later Ministry) of Industry and Commerce, the National Directorate of Power, the Banco de Credito Industrial Argentino, the Official Banking System, the National Directorate of State Industries, the National Economic Council and the various Advisory Councils, consisting of officials and industrialists, attached to those bodies.

### Planning

The Government's general plan for 1947 - 1951, known as the Five-Year Plan, embodies a very clear policy for the development of industry and lays down targets for the private sector.

In its chapter on industries, the Plan specifically emphasizes the importance of industry to the economic development of Argentina and the need for energetic action to ensure its development and protection. The Plan contains proposals for a Development Bill which was never considered by the National Congress.

The targets set for 1951 in comparison with 1943 (the year for which the most recent industrial statistics were available when the Plan was drafted) consisted in a 50 per cent increase in installed power, a 34 per cent increase in the manpower employed, a 53 per cent increase in wages and a 43 per cent increase in the volume of production. It was hoped in this way to obtain a 15 per cent increase in efficiency, a 15 per cent increase in average wages and a 13 per cent increase in output per worker.

/The targets



The targets set for the principal industries were as follows:

	Target Tons	against	1943 Tons
Cotton yarns	80,000		55,000
Wool yarns	30,000		21,000
Rayon yarns	8,000		3,500
Long fibre yarns	6,000		4,000
Washed wool	100,000		65,000
Paper for books	190,000		100,000
Newsprint	50,000		...
Caustic Soda	40,000		10,000
Sodium carbonate	25,000		...
Steel ingots	315,000		120,000
Zinc	6,000		2,000
Tinplate	70,000		...
Lead	24,000		23,000
Tin	2,600		...
Antimony	2,000		...

The planned figure should be compared with the actual results:

Table 58 Argentina. Fulfilment of the Five Year Plan

Article	Index numbers	
	Estimated production for 1951 compared to 1943	Production achieved in 1950
	Per cent	Per cent
Cotton yarns	145	126
Wool yarns	143	1/
Rayon yarns	228	184 1/
Long fibre yarns	150	
Washed wool	154	69
Paper for books	190	129
Caustic soda	400	114
Steel ingots	262	184
Zinc	300	150

Source: Plan de Gobierno 1946-51 and Síntesis Estadística Mensual de la República Argentina. /As will

1/ No figures are available but the target has been largely exceeded. In the case of newsprint, sodium carbonate and tinplate, which were not produced in 1943, the plan has not yet been put into effect. The production of lead and tin is below the 1943 level.

As will be seen, the plan is being fulfilled or the targets are being approached in the case of cotton, rayon, wool and long fibre yarns and the prospects are good for paper and zinc. The possibilities of attaining the target in the case of steel and sodium derivatives (sodium carbonate and caustic soda) depend on the execution of the individual plans which are discussed elsewhere.

#### Measures related to various economic aspects

Less important than the foregoing are a number of measures of economic policy related to particular aspects of industrial production. Although these are not specific development measures, existing industrial development has been taken into account when making decisions of an economic character. On occasions when it has been decided to sacrifice industry to satisfy other interests, the wholly unfavourable direct or psychological repercussions of that attitude have immediately made themselves felt.

It can be stated that generally speaking due consideration was given to industry in recent years prior to 1948. Since that date, although the earlier policy has been maintained, measures have been adopted which have been detrimental to existing industry, and more particularly to the confidence which is essential in the case of enterprises involving long-term investments. Mention may be made of freight rates, the use of energy, the system of tenders for official contracts, the control of prices and supplies and the special regulations for the encouragement of specific industries.

#### Freight rates

The old rate structure which is still in force is, as noted elsewhere, far from being calculated to stimulate industrialization. One of the reasons given by the Government for the nationalization of railways was the establishment of a freight structure and transport policy which would encourage regional industrialization.

/Utilization

### Utilization of energy

Industrial development has resulted in a substantial increase in the utilization of energy, whether in the form of prime movers or of electric power purchased from public utility plants.

The maintenance of supplies of energy at the required level has been a major problem in recent years. Details of the administrative organization and direct State action taken in this respect are given in sections (f) and (g).

In 1950 the shortfall of local production was still considerable since the supply was less than half total consumption. None of the great hydro-electric plants being built under the Five-Year Plan, with a total capacity of 1.5 million kilowatts, has yet come into operation.

Río Turbio, the great coal mine in the South, has also yet not come into full production. It is hoped that the opening of the railway to Río Gallegos, to be completed in 1951, will make possible an output of 1 million tons a year.

The restrictions on the use of energy imposed in 1950 have handicapped industry, although industrial users have priority over other types of consumption. The restrictions apply to electricity in towns where the power stations are overloaded, as is the case in most parts of the country. Non-essential industries can be connected or obtain increased power only if they consume power at night. In addition, industries receiving supplies of energy are not allowed to change to another branch of production without previous authorization.

### Control of prices and supplies

The shortage resulting from the discrepancy between the volume of production and imports and the increased demand has been one of the most powerful factors of inflation.

In order to diminish or eliminate speculation with the object of avoiding a rise in prices, and in order to maintain or raise the standard of living of the population, the Government was led to adopt a series of price control measures which have seriously affected industrial development. When they have gone beyond the original intention of preventing abuses, these measures have, generally speaking, proved detrimental to production. With the reduction in profit margins and under the pressure of controls and

/restrictions,

restrictions, entrepreneurs have ceased to invest. This has been detrimental to increased production, the only effective remedy for inflation and speculation. Although it was not the decisive factor, it has undoubtedly been partly responsible for the stagnation of industrial growth.

The principal measures adopted in relation to industry are summarized below. On the outbreak of the Second World War, speculative manoeuvres obliged <sup>the</sup> Government to intervene in order to prevent an unjustified rise in prices. In September 1939, Act No. 12591 was passed fixing the prices prevailing in the first two weeks of August 1939 as the maximum prices for a series of items -- foodstuffs, articles of clothing, building materials, lighting, heating, sanitation and housing. These prices were to be specified and put into force as necessary by the Executive Power. In addition the Act:

- (1) laid down that the maximum prices must be displayed;
- (2) required industrialists and traders to declare their stocks, output and costs;
- (3) authorized the abolition of the 10 per cent customs surcharge in order to stimulate imports;
- (4) authorized the expropriation in the public interest of any article covered by the Act and of the raw materials used in its manufacture;
- (5) prohibited the reduction of wages on grounds of the fixing of maximum prices;
- (6) authorized the prohibition or restriction of exports.

The Act established penalties for persons violating it openly or indirectly. Immediately afterwards, executive regulations (Decree No. 40980/39) were issued setting up the Comisión Nacional de Control de Abastecimientos to advise the Executive on the maximum prices to be fixed and on the desirability of expropriations or the imposition of penalties.

Shortly afterwards, by Decree No. 41535/39, maximum prices were fixed for natural and manufactured foodstuffs, manufacturers and traders were required to supply their regular customers in proportion to the latter's normal purchases; it also authorized the Commission to initiate proceedings against persons making unjustified increases in the prices of articles not listed in the Decree.

/In August 1946

In August 1946, Act No. 12830 was issued in the light of experience acquired in the enforcement of the Act and Decrees mentioned. This Act and the supplementary Act (No. 12833) gave the Executive the necessary powers to deal with the problems of post-war supplies and to protect and direct the primary and industrial production of the country. Among the new provisions, special mention should be made of the authorization:

- (a) to fix minimum prices at any stage of the commercial process;
- (b) to regulate the production, transportation and use of the articles covered by the Act;
- (c) to grant exemptions from, ~~or the reduction of,~~ import duties on a larger scale than was allowed under the previous Act;
- (d) to utilize means of transport for the official distribution of merchandise

The Act will remain in force until June 1952.<sup>1</sup>

As the application of penalties, which had been entrusted to administrative tribunals subordinate to the Judiciary, had proved to be ineffective, Act No. 12983 conferred that power on the Executive in May 1947. The Executive was authorized to impound goods without first making a deposit of their value and to take temporary possession of industrial and commercial establishments in order to put a stop to excessive prices; this emergency Act was to remain in force for two years.

Towards the end of 1947, the system was further improved by Decree No. 32506, which fixed percentage net profits for textile goods, differing with the rate of business or industrial turnover of each type of establishment and its operating costs, and provided that profits in excess of the authorized maxima should be payable to the State, without prejudice to the penalties prescribed by law. This system was changed in August 1950 because of the difficulties which arose in its application, and percentage gross profits were fixed on the same bases as before (Order No. 1165/50 of the Ministry of Industry and Commerce).

In August 1950, it was laid down in Decree No. 16024 that, in order to increase the flexibility of the system, maximum prices could be fixed by order of the Ministry of Industry and Commerce.

/In addition

In addition to the foregoing, the following features of the system now in force should be noted:

1. In the case of certain widely consumed articles (cheaper grades of bread, cheese, cocoa and quince preserves) the prices fixed are below cost; the resulting loss to the producers is compensated by the prices fixed for similar articles of other grades;

2. Under the percentage profit system a choice may be made between an overall margin, to be established at the close of each financial year, with independent regulation of the prices of each article or the uniform application of the same margin to all articles; the first alternative is more flexible and permits price competition (seasonal sales, special offers on particular occasions etc.);

3. In other such cases as cement for example, fixed margins of industrial profits have been established with the object of stimulating production, thus permitting increases in establishments where costs are higher;

4. The maximum prices of essential foodstuffs are fixed weekly, on the basis of wholesale prices;

5. The punishment of offences is the responsibility of the Federal Police acting under the direction of the National Directorate for the Supervision of Prices and Supplies, a department of the Ministry of Technical Affairs.

As regards rationing, it should be noted that the guiding principles were laid down towards the end of 1939 when Decree No. 41535 established that industrialists and traders were to distribute goods to their regular customers in proportion to their normal purchases. When difficulties arose with regard to the supply of jute bags for the grain harvest at the beginning of the war, the Government assumed responsibility for their distribution. Later official control was extended to so-called critical materials (rubber, metals and chemical products) and to newsprint. In 1944 rationing was systematized on the following lines:

(a) stocks had to be declared and permission requested for the transfer of critical materials;

(b) priorities were established for supplies required for reasons of national defence, public health, public services and essential industries; the quotas for the latter were established in accordance with the volume consumed in a normal period taken as base;

/(c) expropriation

(c) expropriation and official distribution of articles in short supply and essential articles (burlap).

At the end of the war a series of measures were taken to abolish rationing; it is now in force for only a few articles (tires, for example) although the distribution of "critical" goods is still subject to control and in some cases regulations have been laid down for their use as in the case of tinsplate, colophane, etc.

#### Measures to facilitate the establishment of foreign industries

At the end of the war, great interest was shown in the establishment of industries in Argentina by foreign entrepreneurs who were anxious to transfer existing or new plants to Argentina complete with technical staff and workmen.

Even when the industries were equipped with used machinery, their transfer was in the national interest since it involved the expenditure of no foreign currency and resulted in a gain in manpower and equipment.

Decree No. 3347 of 1948 established the National Commission for the Location of Industry with the function of selecting, guiding and directing the establishment of industries and organic groups of workers from abroad.

By late 1949 approval had been given for the establishment of 117 undertakings, from the 161 applications received; 160 million pesos worth of machinery had been admitted duty-free and 13,000 workers and technicians had entered the country. By that date 46 undertakings had moved to Argentina. Metal, engineering and woodworking plants, sawmills, building undertakings, spinning and weaving mills predominated. The majority of industries were of Italian origin, although a number came from Switzerland, Czechoslovakia and other countries. For various reasons, not all the concerns which receive approval are actually established.

One of the conditions imposed on entrepreneurs is decentralization, but they enjoy the advantage of exemption from customs duty on the importation of machinery and the free transportation of staff.

#### Direct State action

The industrial State is now a reality in Argentina. This is the result of circumstances, rather than of political philosophy, although it must be recognized that government agencies are not particularly eager to turn over to the private sector of the economy undertakings which they have set up, acquired or appropriated.

/The industrial

The industrial undertakings administered by the State fall into five large groups: those belonging to the National Directorate of State Industries, the Directorate-General of Military Manufactures, the Aerotechnical Institute, the National Power Undertakings and the Argentine Stockbreeding Institute. In addition a number of factories, such as the cold storage plants operated by the Government of Buenos Aires Province, are administered by the provincial governments for special or minor reasons.

The undertakings operated by the National Directorate of State Industries are primarily those taken over by the Government on the declaration of war and originally controlled by the Directorate for the Custody of Enemy Property. Subsequently, other undertakings set up by the State during the war were added, such as the National Factories for Textile Containers and the Domestic Weaving Corporation, as well as others that have been acquired or incorporated. The National Directorate of State Industries is considering the establishment of cement factories, the development of the garment industry in the north-west and of the heavy chemical industry.

The Directorate-General of Military Manufactures controls strictly military factories, i.e. factories for the production of war material only: arms, munition, explosives etc. It has, however, also established or acquired and expanded other factories which, although not of direct or immediate military value, serve the broader purpose of developing general production, which is, of course, of military importance. In some cases it has set up mixed companies which are governed by special regulations.

Mention should be also made of the Aerotechnical Institute of the Air Ministry which is concerned with the production of military aircraft and engines but whose activities have repercussions on economic life.

National Energy Undertakings, a recently established body, administers all undertakings producing or distributing energy -- oil, gas, electricity, coal and vegetable fuels. State action has been very extensive and most important since the establishment of the State Oil Fields, and has substantially increased in recent years with the acquisition of private undertakings producing gas, electricity and oil. It may be recalled that under Article 40 of the National Constitution of 1949, the State reserved the right to carry on all public services.

/Finally,



Finally, the Ministry of Economic Affairs has also become an industrial entrepreneur through the Argentine Stockbreeding Institute. The latter is the body established by Act No. 13991 of 1950 to direct national stockbreeding policy and administer the State cold storage plants, including those formerly owned by the producers who formed the Argentine Corporation of Meat Producers.

-----

