

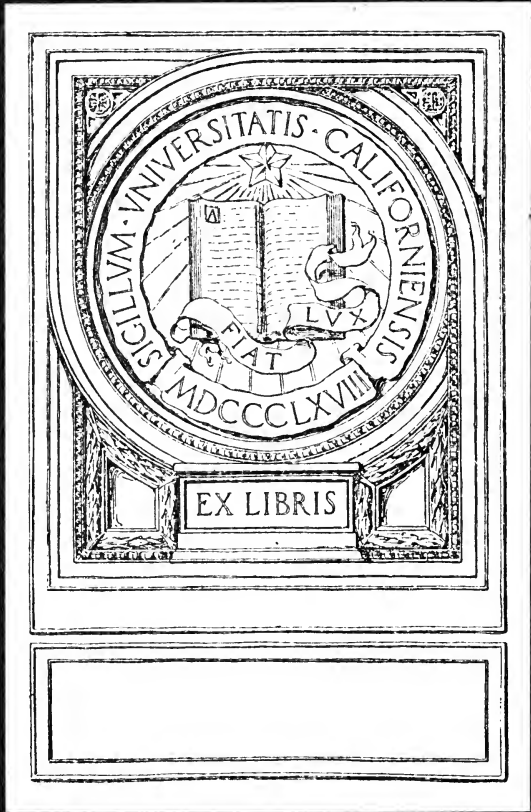
HC
175
S6

UC-NRLF



\$B 89 513

84108 dx



DEPARTMENT OF COMMERCE

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

PHILIP B. KENNEDY, Director

MISCELLANEOUS SERIES—No. 88

ECONOMIC STUDIES OF COUNTRIES DURING THE WAR

COMPILED IN THE

BUREAU OF RESEARCH AND STATISTICS

WAR TRADE BOARD

**THE ECONOMIC POSITION OF ARGENTINA
DURING THE WAR**

BY

L. BREWSTER SMITH and HARRY T. COLLINGS

Research Assistants

ELIZABETH MURPHEY, Junior Research Assistant



PRICE, 15 CENTS

**Sold by the Superintendent of Documents, Government Printing Office,
Washington, D. C.**

**WASHINGTON
GOVERNMENT PRINTING OFFICE**

1920

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation



DEPARTMENT OF COMMERCE

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

PHILIP B. KENNEDY, Director

MISCELLANEOUS SERIES—No. 88

ECONOMIC STUDIES OF COUNTRIES DURING THE WAR

COMPILED IN THE

BUREAU OF RESEARCH AND STATISTICS

WAR TRADE BOARD

**THE ECONOMIC POSITION OF ARGENTINA
DURING THE WAR**

BY

L. BREWSTER SMITH and HARRY T. COLLINGS

Research Assistants

ELIZABETH MURPHEY, Junior Research Assistant



PRICE, 15 CENTS

Sold by the Superintendent of Documents, Government Printing Office,
Washington, D. C.

**WASHINGTON
GOVERNMENT PRINTING OFFICE**

1920

DEPARTMENT OF THE ARMY
HEADQUARTERS
WASHINGTON, D. C.

HC 175
S6

THE BOUNDARY
OF



256

CONTENTS.

	Page.
Letter of submittal.....	5
Note on trade statistics.....	6
I. Introduction.....	7
Purpose of the report.....	7
Area, climate, and topography.....	7
Water power.....	9
Population.....	9
Immigration and emigration.....	10
The labor situation.....	10
High cost of living.....	11
II. Agricultural products.....	13
Importance of agriculture.....	13
Chief products.....	14
Minor crops.....	28
Trade in agricultural products.....	32
III. Animals and animal products.....	34
Importance of live-stock industries.....	34
Argentina's position in world meat trade.....	34
Live-stock raising.....	35
Foreign trade in animal products.....	37
IV. Forest products.....	48
Argentina an importer of lumber.....	48
Location of timber.....	48
Imports of lumber.....	50
Construction.....	53
Quebracho.....	53
Quebracho extract.....	54
Firewood.....	56
Conclusion.....	56
V. Minerals.....	57
Development of mining industry.....	57
Petroleum.....	57
Coal.....	60
Wolfram.....	62
Mica.....	62
Other minerals.....	63
Trade in minerals.....	64
VI. Manufacturing industries.....	67
Development before the war.....	67
Manufacturing industries during the war.....	68
VII. Transportation.....	72
General situation.....	72
Rivers and harbors.....	72
Railways.....	73
Automobiles.....	80
Shipping engaged in foreign trade.....	81
Possibilities of shipbuilding or purchase of ships.....	83

	Page.
VIII. Argentine foreign trade	84
Importance of the foreign trade	84
Changes in trade during the war	85
Effect of the war on value and quantity of trade	85
Nature of Argentine trade	87
General trend of exports	87
General trend of imports	91
Direction of trade	96
Trade with certain countries	102
IX. Finance	112
Present favorable conditions	112
The monetary system	112
The banking situation	115
Institutions closely connected with commercial banking	118
The national debt	121
Sources of revenue	123
Foreign investments	125
The balance of trade	128
Probable return of exchange to normal	131
Bibliography	132

LETTER OF SUBMITTAL.

WAR TRADE BOARD,

Washington, June 30, 1919.

SIR: There is submitted herewith a report on "The Economic Position of Argentina During the War." This report is one of a series of economic studies of countries during the war, prepared in connection with the general economic work carried on in the Bureau of Research and Statistics of the War Trade Board and published by the Department of Commerce for general distribution.

The report is the work of Mr. L. Brewster Smith and Mr. Harry T. Collings, assisted by Miss Elizabeth Murphey, with certain revisions and additions made by Miss Katherine Hodge. In the revision of the report valuable suggestions were made by Mr. Julius Klein, of the Bureau of Foreign and Domestic Commerce, and by Mr. C. E. Maguire, of the United States Treasury.

The report should be of especial interest at this time, since it outlines the changes in Argentina's industries, trade, and finance during the war and in many cases indicates the probable future trend of the economic conditions of that country.

Respectfully submitted.

KARL DELAITTRE,

Director, Bureau of Research and Statistics.

HON. VANCE McCORMICK,

Chairman, War Trade Board.

NOTE ON TRADE STATISTICS.

It is important to note the methods used in Argentina in the compilation of figures of exports and imports and to state clearly at the outset how these figures have been used in this study.

Exports.—From 1864, the year when Argentina began compiling statistics of export and import trade, until 1891 the figures used for values of exports were those of the official schedules of prices, which were arbitrary valuations of articles per unit of quantity and which were not changed with changing prices from year to year. After 1892 this was modified for those articles systematically quoted on the market on which there was no export tax. In 1906, when export taxes were abolished, market prices were used for all commodities for which quotations were published, and official schedules used for articles not regularly quoted.

It was decided in 1916 to reorganize the methods used in determining values for exports. The method which has been employed since January 1, 1917, has used average quotations of Argentine market prices at the port of embarkation. These values are based upon publications of authorized commercial institutions and, in the case of articles not quoted by these bodies, upon systematic investigations by which a sufficient number of quotations are obtained from sources of exports to give satisfactory statistical averages.

The necessity became evident also of making available figures for preceding years which would give figures more correct than those published in the official yearbooks. A study was made and index numbers determined. In the official statistical publication for the year 1917 tables are included, giving corrected figures for a large number of commodities for the years 1910 to 1916. These corrected values, referred to in official Argentine statistics as "*real values*," have been used throughout this report except where it is expressly stated that "*nominal values*" are used.

Imports.—Import figures prior to 1917 were based upon a tariff valuation per unit of quantity. These had been only slightly altered since 1906, and values of imports in Argentine statistics were consequently very much too low. After 1917, also, import figures are given in detail in nominal or tariff values only. Investigations of prices of goods imported at Buenos Aires are carried on, however, in a large number of commodities (about 67 per cent of the value of all imports) and index numbers obtained for these articles. An index number is also determined for the total imports. "*Real values*" are given for 168 articles and for totals based on the index numbers obtained. Import values include maritime charges, being c. i. f. at port of importation.

As in the case of exports, corrected figures, or "*real values*" for imports from 1910 to 1917 are listed in "*El Comercio Exterior Argentino en 1916 y 1917.*" Figures for value of imports prior to 1910 differ only slightly from "*tariff*" or "*nominal values.*" For all figures since 1910 "*real values*" are used in this study, except where it is stated that "*nominal values*" are used.

Full explanation of the methods employed in obtaining these values is given in "*El Comercio Exterior Argentino en 1916 y 1917, Boletín No. 176,*" in the first section of the volume headed "*Intercambio Económico de la República 1910-1917.*" This section is also published separately under the same title, being the report of A. E. Bunge, Director General de Estadística de la Nación.

THE ECONOMIC POSITION OF ARGENTINA DURING THE WAR.

I. INTRODUCTION.

PURPOSE OF THE REPORT.

It is the purpose of this report to summarize the economic conditions in Argentina and to consider in some detail the changes in production and consumption and in industries, trade, and shipping during the years 1913 to 1918. It is impossible, however, to deal extensively with some phases of Argentina's economic life in this study, owing to the lack of data available at the present time. The labor situation and industrial development are, therefore, dealt with briefly.

Argentina, though neutral, has been profoundly affected by the war. It is a country dependent upon foreign countries, not only as markets for the disposal of the yearly surplus of agricultural and pastoral products, but also as the sources of the major portion of the manufactured goods needed to sustain economic life. Argentina has been thrown upon itself during the last four years to a considerable extent. The withdrawal of foreign capital and the isolation due to lack of shipping facilities, especially during the last two years, have forced upon Argentina the necessity of doing without large quantities of essential commodities and has tended to stimulate a degree of national self-sufficiency, which will doubtless have a lasting effect upon the national life, though the limitation of imports forced by the war has also hampered industrial development, because many of the tools of industry must also be imported from overseas.

AREA, CLIMATE, AND TOPOGRAPHY.

Argentina stretches from tropical lands (22° south latitude) to the cold latitudes (55° 30' south latitude), and it has a coast line 1,565 miles in length. If the area of 1,153,119 square miles could be remolded, it would more than cover that portion of the United States which lies east of the Mississippi River. Argentina is a large country with great variations in climate, but with a remarkably uniform topography, except in the extreme western part, where the crest of the Andes forms the boundary. The almost universal levelness has been instrumental in developing both agricultural industries and railway communications. The lack of ruggedness, possibly, has made inaccessible any potential supplies of coal and iron. The drawbacks to industrial development, occasioned by the lack of coal and iron resources, may be lessened if the rivers of the moist northern Provinces can be used for water power and for the transportation of forest products.



MAP 1.—Southern South America

The climate greatly influences the economic position of the country. Not only does it vary from the semitropical cotton and sugar growing region of the north to the cold wool-producing lands of Patagonia, but there is also a great variation from east to west. In a journey westward from Buenos Aires to Mendoza, at the foot of the Andes, the traveler experiences climatic changes similar to those found in a trip in the United States from the cereal-growing region about

Kansas City to the irrigated lands about Denver. In each case he finds less and less rainfall as he moves westward.

WATER POWER.

Power, generated on a commercial scale, is needed for industrial plants, and especially for the tramways and lighting of the large cities. The largest cities of Argentina are not located in the region of water power, so the big foreign-managed utilities companies employ electricity, using imported coal as the generating force. As in the case of the railroads, these concerns have suffered during the war and have turned to the use of wood and native petroleum with unsatisfactory results. Water power is greatly needed by the Republic. Attempts to utilize this force have been made in the northern Provinces.

POPULATION.

Argentina is a new country, with large area, rich resources, and a comparatively small population. In 1895 the population was 3,954,911, and in 1914, 7,885,237, showing a doubling of the number in 20 years. In 1914, however, Argentina had only 6.83 people to the square mile, as compared with 28.95 in the United States, 379.53 in the United Kingdom, and 673.35 in Belgium. As a result, the industries of Argentina tend to be those making extensive use of the land and small use of labor. The country is not an industrial but an agricultural country, as is usually the case in newly populated lands.

The following table shows the population of the various Provinces and their capitals:

AREA AND POPULATION OF PROVINCES, TERRITORIES, AND CAPITALS.¹

Federal districts, Provinces, and Territories.	Area (square miles).	Population, census 1895.	Population, census, 1914.	Population per square mile, 1914.	Capital.	Estimated population, 1918.
Federal district:						
Buenos Aires.....	72	663,854	1,575,814	21,886.30	Buenos Aires.....	1,750,000
Martin Garcia Island.....			783			
Provinces:						
Buenos Aires.....	117,777	921,168	2,066,165	17.54	La Plata.....	100,000
Santa Fe.....	50,713	397,188	899,640	17.73	Santa Fe.....	48,000
Cordoba.....	66,912	351,223	735,472	10.91	Cordoba.....	100,000
Entre Rios.....	29,241	292,019	425,373	14.54	Parana.....	77,000
Corrientes.....	33,535	239,618	347,055	10.34	Corrientes.....	25,000
San Luis.....	29,035	81,450	116,266	4.04	San Luis.....	11,000
Santiago del Estero.....	55,385	161,502	261,678	4.72	Santiago del Estero.....	12,000
Tucuman.....	10,422	215,712	332,933	31.94	Tucuman.....	75,000
Mendoza.....	56,502	116,136	277,535	4.91	Mendoza.....	64,000
San Juan.....	37,865	84,251	119,252	3.14	San Juan.....	15,000
La Rioja.....	37,839	69,502	79,754	2.10	La Rioja.....	8,000
Catamarca.....	36,800	90,161	100,391	2.72	Catamarca.....	10,000
Salta.....	48,302	118,015	140,927	2.91	Salta.....	20,000
Jujuy.....	14,802	49,713	76,631	5.17	Jujuy.....	6,000
Territories:						
Misiones.....	11,511	33,163	53,563	4.65	Posadas.....	10,000
Formosa.....	41,402	4,829	19,281	.46	Formosa.....	3,000
Chaco.....	52,741	10,422	46,274	.87	Resistencia.....	3,000
Pampa Central.....	56,320	25,914	101,338	1.79	Santa Rosa de Toay...	2,000
Neuquen.....	40,530	14,517	28,866	.71	Neuquen.....	3,000
Rio Negro.....	79,805	9,241	42,242	.52	Viedma.....	2,000
Chubut.....	93,427	3,748	23,065	.24	Rawson.....	2,000
Santa Cruz.....	109,142	1,058	9,948	.09	Gallegos.....	2,000
Tierra del Fuego.....	8,299	477	2,504	.30	Ushuaia.....	1,000
Los Andes.....	34,740		2,487	.07	San Antonio de los Cobres.	1,000
Total.....	1,153,119	3,954,911	7,885,237	6.83		2,350,000

¹ Source: Statesman's Year Book, 1918, p. 639.

² In 1917 the estimated population was 8,574,000 (4,287,023 males and 4,286,977 females). Of these, 2,357,952 (1,473,809 males and 884,143 females) were unnaturalized foreigners.

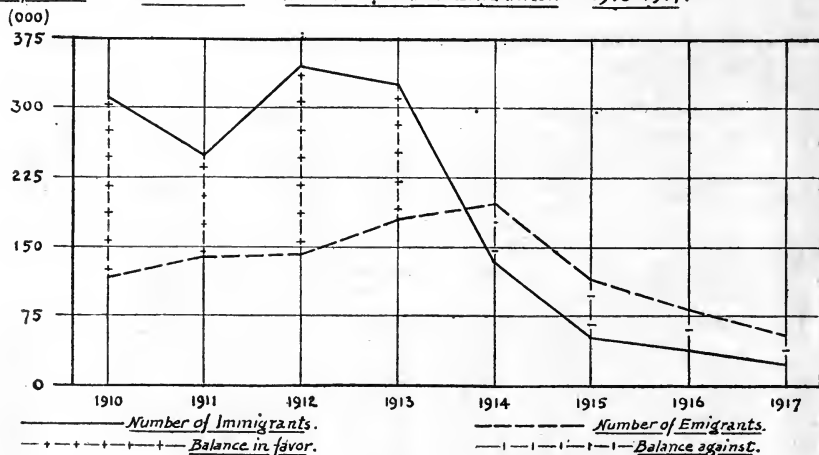
IMMIGRATION AND EMIGRATION.

Since most of the country lies within the seasonal belt of the Temperate Zone, European labor, especially from the Mediterranean countries, is attracted constantly. In 1917 the estimated population was 8,574,000. There were 4,287,023 males, of whom 1,473,809 were foreigners; in other words, 34.38 per cent, or approximately one-third, of the labor was of foreign birth. The following table shows the immigration and emigration from 1910 to 1917:

IMMIGRATION AND EMIGRATION.

Years.	Number of immigrants.	Number of emigrants.	Excess of immigration (+), excess of emigration (-).
1910.....	310,224	116,167	+194,057
1911.....	247,803	142,344	+105,459
1912.....	348,570	142,460	+206,110
1913.....	327,446	181,056	+146,390
1914.....	135,787	196,890	- 61,103
1915.....	54,144	118,636	- 64,492
1916.....	40,310	80,867	- 40,557
1917.....	23,530	56,268	- 32,738

Graph No. 1. ARGENTINA — IMMIGRATION AND EMIGRATION — 1910-1917.



THE LABOR SITUATION.

The chief reason for the large emigration, as well as immigration, is the abnormally large demand for labor during the harvesting season. Prior to the war this was largely supplied by laborers from southern Europe, who found it profitable to emigrate to Argentina for this short period, returning to their own country when the harvest was over.

The seasonal nature of the greater part of Argentina's labor results in a serious problem, which has been the concern of the Government for many years. Although the country is one where labor is, on the whole, scarce, owing to the irregularity of work and the

lack of organization to take care of the condition, there is a great deal of unemployment at certain times of the year, which always brings serious social and economic conditions. Skilled labor for industrial work is not abundant, though at times this type of labor is often found unemployed.

The war has affected the labor situation in Argentina in several ways. In the first place, the supply of foreign labor has decreased considerably, as can be seen by the preceding table and the graph. The causes of this decline are evident. The economic and military demands upon their citizens by the European Governments have held these people at home and have called home many who might have remained in Argentina.

Internal conditions in Argentina resulting from the far-reaching effects of the European war can not be dealt with in full in this study. It is interesting to note, however, the changes in the labor situation and the problems which became acute.

In 1914 the first shock of the war caused many industries to curtail their output. Industrial laborers were thrown out of work. Lock-outs in the larger cities were frequent, and the resulting social conditions were of great concern to the Government. Farm labor was also more abundant than the demand in that year. In 1915, however, the war had begun to stimulate both industry and agriculture, and there was fear of a shortage of farm labor. The same condition was feared in 1916, but a slightly poorer crop than was expected resulted again in a considerable amount of unemployment. In 1917 the failure of crops accentuated this condition.

In 1918 industrial labor was in more demand than ever, and strikes increased, owing to the greatly increased cost of living, for which laborers demanded corresponding increases in wages, and to the fact that the demand for labor was in excess of the supply, and the laborer was so placed in a more advantageous position for bargaining. The end of the war found Argentina in a general state of unrest, similar to the condition sweeping the whole world. The causes were similar to those in other countries. The influence of radical movements in other parts of the world naturally played a part in the development of this condition. The strikes which held up traffic in the harbors for several months were widely known throughout the world, because they affected foreign shipping and trade, but they were merely a part of a series of strikes of similar magnitude and importance. A detailed study of the labor situation would be necessary, however, to give an adequate statement of the situation during the war. The scope of the present study allows only the foregoing statement of the fact that great labor unrest exists, and that its causes are similar to those in other countries. The holding of large tracts of land by a few and the development of trusts are two of the causes. One of the chief causes, however, is the increased cost of living.

HIGH COST OF LIVING.

The cost of living had been gradually increasing in Argentina, but with the opening of the war it rose by leaps and bounds. Increased wages allayed the discontent at first, but it was impossible to keep pace with the growing prices. The result is seen in the strike troubles of the past year, culminating in the harbor strikes. The Direc-

tor General of Statistics has recently stated that the cost of living increased 60 per cent during the war. The economic reason underlying the transformation is readily appreciated in the case of Argentina. It is a country that produces a few staples in abundance; its luxuries and many of the necessities come from abroad. The following chosen list of wholesale prices shows the increase (in United States currency) on commodities imported and on domestic goods which are in demand abroad.

PRICES OF CERTAIN COMMODITIES.

Articles.	1914	1917	1918
Cheese.....per pound..	\$0.37	\$1.39	\$1.47
Sugar.....do.....	.07	.10	.16
Olive oil.....per quart..	.20	.26	.70
Kerosene oil.....per gallon..	.78	.96	1.07
Fat.....per pound..	.11	.12	.17
Flour.....do.....	.03	.04	.05
Meat.....do.....			.11
Eggs.....per doz.....			.21

The last four items show the prices obtained for the native products. In spite of the price of meat, which seems abnormally low, the consumption of meat per capita in Argentina has decreased, because the great mass can not afford such prices. The scarcity of fuel has added to the general unrest.

The Government has recognized the acute conditions, and Congress recently discussed the following suggestions for relief:

- (1) To establish an open market in Buenos Aires.
- (2) To have the ovens in the Federal penitentiary work to full capacity and sell the surplus at cost price.
- (3) To revoke the tax on producers of food supplies.
- (4) To build houses for workingmen.
- (5) To establish a permanent tribunal to arbitrate in strikes.

The permanent cure, however, depends upon the ability of the Republic to once more import cheap foreign goods and to vary its products. Specialization, resulting in large profits, has made money for the few and high prices for the masses.

II. AGRICULTURAL PRODUCTS.

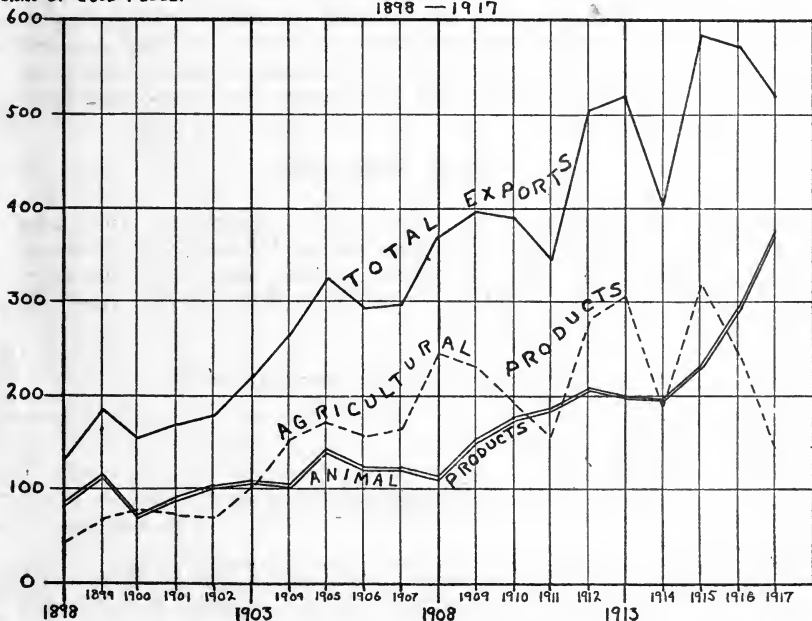
IMPORTANCE OF AGRICULTURE.

Argentina is, and will for long remain, an agricultural country, whose principal resources are cereals and animal products. The Republic owes its phenomenal progress and present position among nations largely to pastoral rather than agricultural products, but during recent years more of the fertile soil has been brought under cultivation, and the grain fields are increasing in importance. During the war, however, animal products, especially meats, were in such great demand that export figures for these products show a greater increase than those for agricultural products.

GRAPH No. 2

FLUCTUATIONS IN TOTAL EXPORTS FROM ARGENTINA—TWENTY YEARS 1898 — 1917

MILLIONS OF GOLD PESOS.



The foreign trade of Argentina shows great variations from year to year, because the exports depend so largely upon the returns from the agricultural industries. Without a prosperous year for cereal production and stock raising, the Republic has little to export; and when its exports are small imports tend to be small. The harvests, frequently affected by droughts and locust plagues, produce variations in foreign trade, sometimes amounting to as much as \$40,000,000 to \$60,000,000 above or below the normal. Graph

No. 2 shows the great importance of agricultural and animal products in Argentina's export trade during the 20 years, 1898-1917. The influence of the good and the poor crops on total exports is clearly indicated by the two curves representing total exports and exports of agricultural products, which show almost parallel fluctuations. Animal products, on the other hand, show only slight fluctuations in the general tendency to increase, and, though constituting a large percentage of the export trade, have not counterbalanced the fluctuations in the varying agricultural exports.

Argentina has an area of about 728,680,000 acres, of which about 253,195,000 acres may be used for agriculture or cattle raising, the remainder being mountain, lake, river, or arid regions. About 12,000,000 acres of the cultivable area require irrigation. As only a small portion of the cultivable land is under production, other factors must be acting to prevent expansion. The population of Argentina is small, and only a small percentage of its agricultural products is used for home consumption; the greater part goes into the world markets. Even these in normal times are limited in their power to consume; and for this reason Argentina must restrict production to world market needs. At the end of the 1918 harvest season such a surplus of corn existed that it was used as fuel in certain regions. On the other hand, even if extreme expansion of production were advisable, the Republic would be unable to accomplish this because of lack of man power. During the war, emigration surpassed immigration and labor has become scarcer. The unusual expense of importing agricultural machinery during the war has also been a deterring factor.

CHIEF PRODUCTS.

The following table shows the chief agricultural products of Argentina. The list may be grouped as follows: (1) Products of primary importance, such as wheat, maize, oats, and linseed; (2) commodities of lesser significance, such as rye, barley, rice, sugar, tobacco, and cotton.

AGRICULTURAL ACREAGE AND PRODUCTION.¹

Products.	Acreage.				
	1912-13	1913-14	1914-15	1915-16	1916-17
Chief products:					
Wheat.....	17,088,572	16,236,644	15,464,670	16,413,150	16,082,170
Corn.....	9,460,100	10,255,440	10,381,410	9,924,090	8,965,038
Linseed.....	4,281,325	4,394,995	4,255,810	3,998,930	3,206,060
Oats.....	2,945,228	3,085,771	2,867,670	2,563,860	2,524,340
Minor products:					
Rye.....	98,553	227,981	228,722	211,432	179,717
Barley.....	266,637	418,295	396,435	431,015	387,914
Rice.....	8,331	9,707	8,188	17,401	.....
Tobacco.....	23,850	36,729	37,939	18,846	.....
Cotton.....	6,916	5,476	8,151	9,114	.....
Sugar cane.....	232,736	263,549	269,724	317,395	(2)

¹ Source: Annuaire International de Statistique Agricole, Institut International d'Agriculture, Rome, 1915-16.

² Not listed.

AGRICULTURAL ACREAGE AND PRODUCTION—Continued.

Products.	Production (metric tons).				
	1912-13	1913-14	1914-15	1915-16	1916-17
Chief products:					
Wheat.....	5,100,000	3,100,000	4,585,000	4,600,000	¹ 1,911,200
Corn.....	4,995,000	6,684,000	8,260,000	4,093,000	1,494,600
Linseed.....	1,130,000	995,000	1,144,090	895,100	101,500
Oats.....	1,100,000	740,000	717,000	1,095,528	461,300
Minor products:					
Rye.....	35,900	85,000	46,000	51,000	21,800
Barley.....	97,100	175,000	112,000	140,000	47,130
Rice.....	(²)	(²)	(²)	(²)	(²)
Tobacco.....	8,000	10,129	10,752	5,341	.....
Cotton.....	840				
Sugar cane.....	2,121,560	3,131,018	3,653,331	2,416,164	(²)
Raw cane sugar.....	147,249	276,140	335,956	149,299	(²)

¹ Estimated.² Not listed.

It is the four chief products which are important in export trade and which influence the total export trade from year to year, causing it to fluctuate, as already indicated in graph No. 2.

Another evidence of the importance of this group is the large area devoted to these crops in the cultivated regions of the garden Provinces, viz, Buenos Aires, Cordoba, Santa Fe, Pampa Central, and Entre Rios. The concentration of the cultivation to these Provinces is explained by the following conditions: Good soil, suitable climate, greater population, and better transportation facilities. Even in this fertile section the land devoted to tillage is small and the possibilities for increased acreage are very great.

DISTRIBUTION OF THE PRINCIPAL CROPS: ACREAGE ESTIMATES FOR 1918-19.¹

Provinces.	Wheat.	Linseed.	Oats.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Buenos Aires.....	5,745,176	614,425	2,214,055
Cordoba.....	4,855,601	753,668	135,907
Santa Fe.....	2,389,499	1,304,711	74,131
Pampa Central.....	2,379,615	66,718	222,394
Entre Rios.....	1,111,970	642,471	247,104
Other Provinces.....	494,209	37,066	86,487
Total 1918-19.....	16,976,070	3,419,059	2,980,078
Total 1917-18.....	17,864,412	3,233,606	3,200,002
Total 1916-17.....	16,088,967	3,207,415	2,525,406
Total 1915-16.....	16,420,083	4,000,616	2,564,939

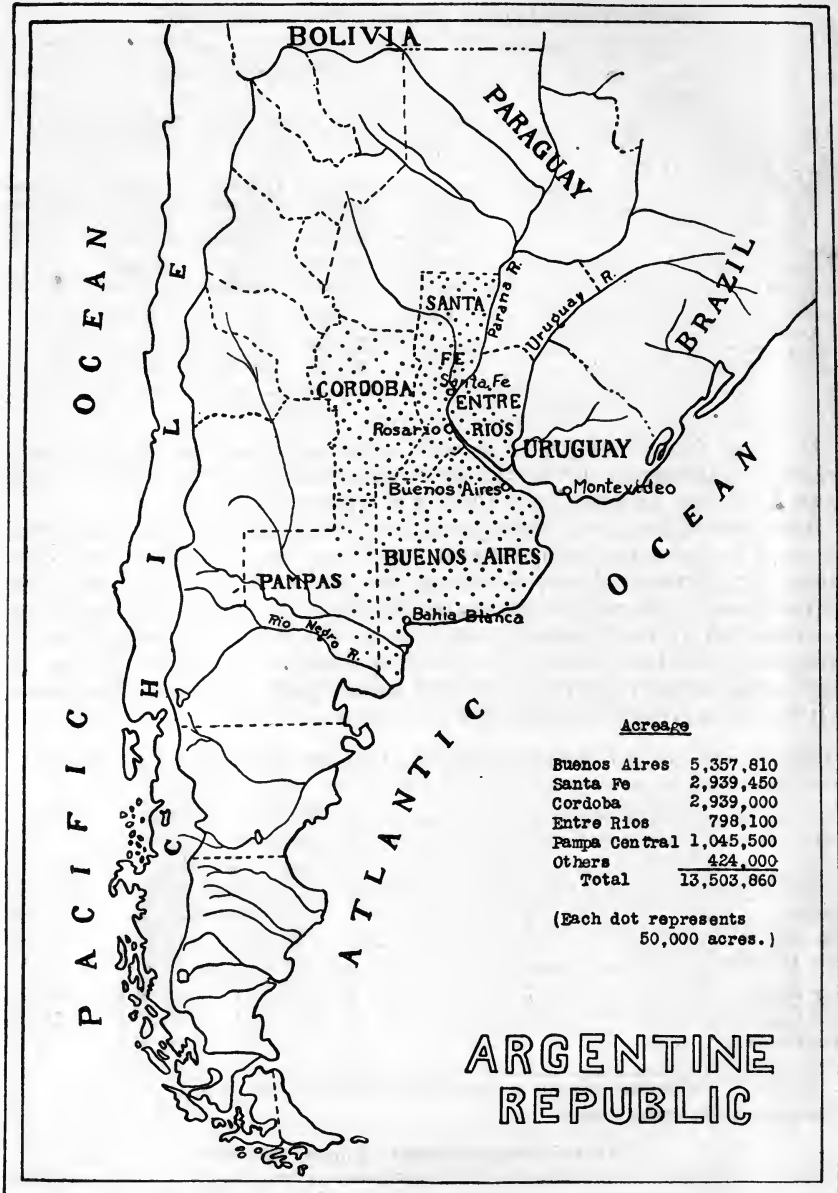
¹ Source: Report from Consul General Robertson, Feb. 21, 1918.

NOTE.—Corn statistics not given.

YIELD OF THE PRINCIPAL CROPS, 1917-18.¹

Provinces.	Wheat.	Linseed.	Oats.	Corn.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Buenos Aires.....	1,200,000	131,200	676,000	2,140,000
Cordoba.....	1,596,000	204,000	50,000	280,000
Santa Fe.....	1,045,000	321,000	75,000	1,700,000
Pampa Central.....	535,000	23,800	100,000	19,000
Entre Rios.....	405,000	130,000	80,000	56,000
Other Provinces.....	250,000	20,000	40,000	140,000
Total.....	5,031,000	830,000	1,021,000	4,335,000

¹ Source: Report from Consul General Robertson, Apr. 16, 1918.



MAP 2.—Agricultural acreage.

WHEAT.

The wheat crop is important not only to Argentina, but it plays a large part in supplying those countries in the world which do not produce sufficient supplies for their own consumption.

The following table, showing the chief producing countries, gives Argentina's position as a wheat producer:

WORLD PRODUCTION OF WHEAT: AVERAGE, 1911-13.¹

Regions.	Acreage.	Bushels.	Per cent.
World.....	266,920,000	3,796,908,000	100
United States.....	48,514,000	704,995,000	19
Russia.....	62,151,000	636,525,000	17
India.....	30,410,000	369,612,000	10
France.....	16,347,000	324,137,000	9
Austria-Hungary.....	12,393,000	247,141,000	6
Canada.....	11,038,000	228,933,000	6
Italy.....	11,778,000	190,840,000	5
Argentina.....	16,530,000	166,521,000	4
Other countries.....	57,759,000	908,204,000	24

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, p.12.

Not until we study the world export figures, however, do we see Argentina's position in the world wheat trade.

WORLD EXPORTS OF WHEAT AND WHEAT FLOUR: AVERAGE YEARLY EXPORTS 1911-1913.¹

Regions.	Net exports (bushels).	Percentage.
World.....	636,357,000	100
Russia.....	122,883,000	19
United States.....	113,767,000	18
Canada.....	110,258,000	17
Argentina.....	100,844,000	16
British India.....	58,963,000	9
Roumania.....	53,705,000	9
Australia.....	52,154,000	8
Bulgaria.....	10,476,000	2
Other countries.....	13,307,000	2

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918.

Although in the class with Italy as a relatively small producer (4.42 per cent), yet, due to the low domestic consumption, Argentina does one-sixth of the world's wheat exporting. Exports in normal years go to northwestern Europe and constitute one of the large factors in the payment of interest on British investments in Argentina. A lesser quantity is sold to the South American countries, Brazil in particular.

The conditions of climate and soil under which wheat is raised are similar to those in the United States. Winter wheat is sown in April and spring wheat in August. December is the greatest harvesting month. The tables and map on pages 15 and 16 show localization of wheat in the Provinces of Buenos Aires, Cordoba, Santa Fe, Entre Rios, and the Territory of Pampa Central.

WHEAT SITUATION DURING THE WAR.

The wheat situation during the years 1914-1918 was influenced by the conditions, resulting from the war, of demand for wheat and flour and of the shipping situation. The following table shows first the acreage planted during the war years and indicates in a measure the expectations of wheat growers of marketing their crops. Figures for pro-

duction and yield per acre show the success of the crop, while exports indicate the demand for Argentina's wheat as affected by the cutting off of the German market, by increased demands of allied and neutral nations in Europe, and by decreased shipping facilities.

ARGENTINE WHEAT STATISTICS.¹

Years.	Acreage.	Production (bushels).	Yield per acre.	Net exports of wheat and wheat flour in terms of bushels of wheat.	Apparent consumption (bushels).
1911-13, average.....	16,530,000	166,521,000	10	100,844,000	65,677,000
1914.....	16,243,000	113,904,000	7	39,235,000	74,669,000
1915.....	15,471,000	169,166,000	11	98,045,000	71,121,000
1916.....	16,420,000	172,620,000	11	91,523,000	81,097,000
1917.....	16,089,000	70,224,000	4	² 39,658,092	30,565,908
1918.....	³ 17,574,000	³ 184,856,000	³ 11	⁴ 78,294,000	.....

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918.

² Estimated (not found in source) from official export figures.

³ Preliminary estimate.

⁴ For nine months, from official figures.

These figures, together with the following table of prices compiled by the Argentine Government,¹ furnish the basic facts from which to study the effects of the war on the Argentine wheat situation.

PRICES OF WHEAT IN ARGENTINA.

Years.	Gold pesos per ton.	United States dollars.
1910.....	38.33	36.99
1911.....	35.29	34.05
1912.....	37.21	35.90
1913.....	36.49	35.21
1914.....	37.90	36.51
1915.....	52.81	50.96
1916.....	42.10	40.63
1917.....	64.79	62.52

These are average f. o. b. prices at Argentine ports for the years given and indicate the general price at which the crop was exported.

Although the yield per acre in 1914 was not as good as the average, and the resulting production lower, the greatly reduced exports in that year were due not to the lack of wheat to export, but to the first shock of the war and the tendency of the European Allies to purchase a larger share of their imports from nearer markets. The effect of this situation is reflected in the slightly decreased acreage in 1915. The good crop with the large production in 1915, however, was in demand, and exports returned almost to their pre-war level, with the price also considerably higher than in the preceding year. As would be expected, growers were encouraged to plant a larger acreage in 1916, and the production for that year was higher than in 1915. The effect of submarine warfare and the scarcity of shipping began to show themselves in that year, however, and exports fell slightly,

¹ El Comercio Exterior Argentino, Boletín 176, p. 153.

causing the price to go down again almost to the 1914 level. The natural effect of the low price is reflected in the slightly decreased acreage planted in 1917.

The wheat situation in Argentina in 1917 was entirely different from all expectations. Bad weather conditions damaged the crops, causing the average yield per acre to drop from 11 bushels, as in the two preceding years, to 4 bushels, and decreasing production from about 172,620,000 bushels, which might be expected from the acreage sown, to only 70,224,000, or less than one-half the expected crop. In the meantime, although the problem of supplying ships to bring products from long distances was becoming more and more serious for the allied countries, Argentine wheat was in demand. Prices rose to a high level. The Argentine Government, fearing a shortage of wheat serious enough to endanger the necessary consumption of the country, put an embargo on the exportation of wheat in March, 1917. Production figures indicate the prudence of this action. It resulted, however, in a surplus of 200,000 to 300,000 tons, which was carried over to the next season's supply, owing to the high price of wheat in Argentina and the consequent decreased consumption. Exports in 1917 amounted to only 39,658,092 bushels.

FOOD AGREEMENTS WITH THE ALLIES.

At the end of 1917 the Allied Governments began negotiations for the purchase of Argentine cereals. In January, 1918, an agreement was signed by which 2,500,000 tons of cereals were to be purchased, including wheat, maize, linseed, and oats.

The following paragraphs sum up the terms of the agreement made in January, 1918, between Argentina on the one hand and Great Britain and France on the other:

The British and French Governments shall buy in the Argentine Republic the surplus of wheat *and other cereals* to an approximate amount of two million five hundred thousand (2,500,000) tons, undertaking to export the same before November 1, 1918. The British and French Governments will pay a minimum price of twelve dollars and fifty cents paper currency for every hundred (100) kilos of wheat, seven dollars paper currency for every hundred kilos of oats, and fifteen dollars paper currency for every hundred kilos of linseed, all of good quality, f. o. b.

The Argentine Government shall open a credit in favor of the British Government up to the sum of one hundred million dollars Argentine gold or its equivalent in paper currency, and a similar credit for a similar amount to the French Government. The amounts drawn under these credits shall carry interest at 5 per cent per annum.

The credits opened shall be utilized for the purchase of Argentine cereals, and may also be used for the acquisition of other produce of the country.

The British and French Governments shall deposit in the respective Argentine Legations the acknowledgments of the amounts drawn under the above-mentioned credits.

The acreage planted in wheat in 1918 was larger than in any previous year, and the good crop resulted in a production of 184,856,000 bushels. The greatly increased acreage was the natural reaction from the Argentine wheat situation of 1917, but it proved to be greater than was warranted by the world situation, and a large surplus remained unexported after the Allies had supplied ships to carry the amount which they required and which they had agreed to purchase. Although exports increased greatly in 1918, as is shown by the figures for the first nine months (the latest available), in the fall of 1918 the situation was serious. The following statement, sub-

mitted to the Minister of Agriculture by Dr. Lahitte, Director of Rural Economy and Statistics, shows the situation on September 1, 1918: ¹

	Tons.
Harvest	5,970,000
Requirements for consumption and seed	1,800,000
Balance	4,170,000
Exported to July 30.	2,234,000
Surplus available for export	² 1,936,000

The statement goes on to say that by September only 54 per cent of the current crop had been exported (as against 90 per cent normally exported by that time), and since the cereals which the Allied Governments had agreed to purchase had already been shipped and were included in the amount, shipping space would probably not be provided for much more. The usual amount had already been shipped to Brazil. An amount of 500,000 tons allotted to Spain and Switzerland had not been exported, but even if shipping space were provided for this amount there would remain a large surplus.

The problem of a large surplus was acute, because of the lack of facilities for storing the grain. It is the usual practice for the farmers to haul the grain to the railroads, where it remains under tarpaulin until it can be moved to the larger centers, such as Buenos Aires and Rosario, where a few grain elevators are to be found.

Argentina's production of wheat is capable of great expansion. Her ability to market her production, however, is limited by the world supply and demand.

The following table of Argentina's export trade in wheat during the war shows increased exports to the European Allies and neutrals in 1915 and 1916, and the decreases in 1917. The large exports to Germany and Belgium in 1912 and 1913 disappeared by 1915. The increased exports in the first nine months of 1918 to the United Kingdom are striking.

EXPORT OF WHEAT.³

Countries.	1912	1913	1914	1915	1916	1917	1918 (9 months)
	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>
Belgium.....	327,932	212,602	90,188				
Brazil.....	346,157	411,342	265,743	298,365	424,554	171,620	237,535
France.....	43,481	189,151	20,275	174,714	444,216	130,290	163,800
United States.....	9,485		781	28,694	11,116		23,089
United Kingdom.....	550,690	571,987	200,069	384,931	201,351	145,255	1,353,855
Germany.....	161,607	85,740	28,016				
Italy.....	145,715	253,311	11,931	367,486	202,094	66,966	61,620
South Africa.....	501			7,072	4,456		3,882
Australia.....				92,622			
Spain.....	1,188	19,606	1,682	23,977	66,179	12,065	159,518
Denmark.....	6,219			5,105	12,413	16,217	
Netherlands.....	173,926	237,477	52,594	27,155	145,128		
Sweden.....	15,754	6,520		13,090	60,740	30,906	17,313
Other countries.....	190,620	32,280	23,830	81,423	68,729	166,788	68,792
To "orders".....	655,781	729,130	285,466	1,006,880	653,891	195,721	677,235
Total.....	2,629,056	2,812,149	980,525	2,511,514	2,294,867	935,828	2,771,619

¹ Source: Review of the River Plate, September 13, 1918, Vol. L, No. 139, p. b ⁶⁵.

² Or 46 per cent of the exportable surplus of the current year's wheat harvest.

³ Source: El Comercio Exterior Argentino, 1912-1918.

NOTE.—Total exports for 1918, 3,927,719 metric tons.

FLOUR MILLING.

Although a large percentage of Argentina's wheat is exported unmilled, flour milling is second only to meat refrigerating among the manufacturing industries. Thirty years ago the Republic could not provide sufficient flour for its own consumption, being obliged to import this article from abroad. In 1901, when the port of Buenos Aires was being built, it was decided to use the waste lands of the port, reclaimed from the River Plate, to establish flour-mill and grain-elevator industries. As a result there are many mills at Buenos Aires and Rosario.

In 1901 some Argentine, Belgian, and British capitalists established a group of mills in Argentina, and now have four mills in Buenos Aires and two in Avellaneda; they are running at full capacity mills in Cordoba, San Francisco (Province of Cordoba), Nogoya (Province of Entre Rios), Tres Arroyos, Tandil, and Coronel Pringles (Province of Buenos Aires), these being the first of a series of mills to be built in the principal wheat zones of the Republic. The principal brand of flour milled by this company is the "Favorita," which has an established reputation. They have built the elevators called Rio de la Plata, where they can store 100,000 tons of cereals. The company has at times employed 1,500 laborers, paying \$135,100 monthly, without taking into consideration the salaries of a great number of other employees.

The millers had to struggle to attain the increased development of their industry, owing to the fact that the Government of Brazil, wishing to favor its own national flour-milling industry, created differential customs tariffs for wheat and flour and accorded privileges for the importation of North American flour to the prejudice of Argentine flour.

The following table shows the details of Argentina's export trade in wheat flour since 1913:

EXPORTS OF FLOUR.¹

Countries.	1912	1913	1914	1915	1916	1917	9 months, 1918.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Belgium.....		193	254				
Brazil.....	111,278	99,869	58,202	55,907	68,375	77,196	79,571
France.....	1,274	274	710	12,905	57,972	20,256	510
Germany.....	833	2,096	200				
Italy.....	77	1		5,112			2
United Kingdom.....	4,452	9,286	1,495	16,264	3,244	507	7
United States.....	165	267	335				1,461
Netherlands.....	1,171	810	232	10,413			7,819
Other countries.....	11,359	11,105	5,359	15,159	13,948	12,844	29,920
To "orders".....	971	748	538	289	751	1,662	308
Total.....	131,580	124,649	67,325	116,049	144,290	112,465	119,598

¹ Source: El Comercio Exterior Argentino, 1912-1918.

NOTE.—Total exports for 1918 were 126,990 tons.

FLOUR STATISTICS, YEAR 1917.¹

Provinces and Territories.	Mills.				Horse-power.	Capacity of flour-production machinery per annum (tons).	Wheat.				Corn.		
	Worked.	Did not work.	No data received.	Total registered.			Milled (tons).	Production.		Per cent of output.		Milled (tons).	Flour (tons).
								Flour (tons).	By-products (tons).	Flour.	By-products.			Per cent of loss.
Provinces:													
Federal Capital.....	7	3		10	6,540	632,102	319,342	228,319	87,910	71.49	27.52	2,059	1,321
Buenos Aires.....	54	23		77	7,995	594,989	368,844	257,187	106,861	69.78	28.89	11,178	7,614
Santa Fe.....	25	20		45	4,644	362,070	215,976	150,005	61,965	69.45	28.69	300	2,603
Cordoba.....	16	8		24	4,710	305,760	242,205	174,659	64,127	72.11	26.47	3,265	2,608
Entre Rios.....	31	13		44	2,811	188,474	121,334	83,999	35,659	69.22	23.38	205	154
Corrientes.....	1	2		3	26	2,090	5	3	2	60.00	40.00		265
Tucuman.....	1	3		4	49	2,760	29,013	20,524	8,317	70.74	28.66	400	950
Mendoza.....	10	3		14	983	66,064	17,202	11,883	4,812	69.07	27.97	1,036	260
San Juan.....	20	2		26	601	27,084	5,351	3,636	1,637	67.94	30.59		
San Luis.....	1	3		4	142	11,940	1,368	1,040	303	76.02	22.14		
Santiago del Estero.....	7	10		22	137	5,323	3,095	1,364	154	69.73	29.50	12	10
La Rioja.....	8	3		11	159	137	5,357	586	270	68.21	31.43	1,377	1,262
Salta.....	15	9		28	302	3,357	3,910	187	50	74.22	23.22	467	273
Jujuy.....	17	6		14	186	3,910	225	187	50	74.22	23.22	467	273
Catamarca.....	14	5		21	202	4,741	1,257	874	382	69.53	30.38	226	169
Total.....	217	112	17	346	29,487	2,215,709	1,323,203	933,246	372,449	70.52	28.14	20,845	15,121
Territories:													
Pampa Central.....	3			4	150	11,000	5,900	4,052	1,812	68.67	30.71	32	15
Chubut.....	2		1	2	47	2,400	1,300	890	410	68.46	31.53		
Neuquen.....	4		8	12	74	1,540	306	204	99	66.66	32.75		
Rio Negro.....	2			2	21	700	450	321	107	71.33	23.57		
Chaco.....	1			1	11	600							
Misiones.....	4	6	3	13	57	1,400	44	34	7	77.27	15.90	882	760
Total.....	15	7	12	34	360	17,640	8,000	5,501	2,435	68.76	30.43	914	775
Grand total.....	232	119	29	380	29,847	2,233,409	1,331,203	938,747	374,884	70.51	28.16	21,759	15,896

¹ Source: Boletín Mensual de Estadística Agrícola, June, 1918.

CORN.

Argentina's position in the world production and exportation of corn is even more strikingly one of "producer for foreign markets" than in the case of wheat. The pre-war production of Argentina's corn crop amounted to 4.52 per cent of the world production and its exports to 46.46 per cent of the total net exports of the world, as is shown in the two following tables:

PRE-WAR CORN PRODUCTION AND ACREAGE IN PRINCIPAL CORN-PRODUCING COUNTRIES.¹

(Three-year pre-war average.)

Countries.	Acreage.	Production (bushels).	Percentage of world production.
World.....	* 168, 079, 000	* 3, 838, 650, 000	100
United States.....	106, 243, 000	2, 701, 074, 000	70
Austria-Hungary.....	8, 494, 000	212, 648, 000	6
Mexico.....	13, 375, 000	190, 000, 000	5
Argentina.....	8, 662, 000	173, 389, 000	4
Roumania.....	5, 187, 000	109, 765, 000	3
Italy.....	3, 964, 000	100, 245, 000	3
Other countries.....	* 22, 194, 000	* 351, 509, 000	9

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, p. 15.

² Exclusive of Portugal.

³ Exclusive of British India.

ARGENTINA'S PRE-WAR POSITION AS A CORN EXPORTER.¹

(Three-year pre-war average.)

Countries.	Net exports. (bushels).	Per cent of world corn exports.
World.....	276, 077, 000	100
Argentina.....	128, 275, 000	46
Roumania.....	47, 164, 000	17
United States.....	43, 034, 000	16
Russia.....	34, 917, 000	13
Bulgaria.....	10, 370, 000	4
Other countries.....	12, 317, 000	4

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, p. 71.

The production of corn fluctuates from year to year, depending largely upon weather conditions. During the war Argentina's yearly production varied from 338,235,000 bushels in 1915 to 58,839,000 bushels, which was the crop of 1917. Exports tend to follow fluctuations in production in normal times. The scarcity of shipping, however, was an important factor affecting exports of corn during the war. The table following shows production and net exports since 1911.

CORN STATISTICS.¹

Years.	Acreage.	Production.	Yield per acre.	Net exports.	Apparent consumption.
	<i>Acres.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>
1911-1913 (average).....	8,622,000	173,389,000	20	128,275,000	² 45,209,000
1914.....	10,260,000	263,135,000	26	139,563,000	123,572,000
1915.....	10,386,000	338,235,000	33	170,623,000	167,612,000
1916.....	9,928,000	161,133,000	16	113,229,000	47,904,000
1917.....	8,969,000	58,839,000	7	³ 35,000,000	23,619,000
1918.....		⁴ 173,400,000			⁴ 140,000,000

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, pp. 15, 16, 73, 74.

² Normal consumption.

³ Source of this figure: El Comercio Exterior Argentino, Boletín 146.

⁴ Estimated.

The consumption of corn is comparatively small in Argentina. The greater part of the crop is exported to European countries. During the war the limited shipping facilities and the preference given to wheat and linseed resulted in an acute situation. One of the most troublesome problems that the war has brought to Argentina is the question of the disposal of the corn crop. In 1917-18 the Republic produced 4,335,000 metric tons and exported during the first seven months of 1918 only 202,700 tons. Dr. Lahitte, Director of Rural Economy and Statistics, estimated early in 1918 that the corn required for home consumption and seed ranged between 1,700,000 and 2,000,000 metric tons, so that unless new uses were found for the grain there would be a surplus of approximately 2,000,000 tons for export. This large surplus remains from the 1917-18 crop, and the present crop is believed to be above the average. The estimated total available for 1919 was 3,550,000 metric tons. At the close of the year 1918 the price of corn was quoted at 63 cents a bushel in Argentine centers, while it commanded \$1.55 to \$1.78 in New York City.

In Rosario, where hogs are not raised to any extent and corn is not popular as a human food, the price has reached such a low point that corn will probably continue to be used as fuel in place of the more expensive coal. Lack of storage facilities and scarcity of bagging have added to the difficulties of properly disposing of the surplus. The fact that the Argentine corn surplus for export in good years equals 46 per cent of the world export trade in that grain makes the outcome problematic. Other corn-producing regions are also heavy consumers, but this is not so in the case of Argentina. The solution of the problem lies in transforming the corn into other products, such as alcohol, starch, glucose, and especially in producing beef and pork. The quantity that could be consumed in the production of alcohol is negligible. Heavy consumption must depend upon the live-stock industries. The existence of extensive and accessible grazing lands makes it unprofitable to raise many cattle on stock farms. Hogs can be advantageously raised on corn, and the frigorificos (refrigerating plants) are maintaining an active campaign to promote swine production.

Like the other cereals, production of corn in Argentina declined in 1916, and markedly so in 1917, due to poor weather and the expected shortage in shipping. To-day, however, an unmanageable surplus exists. Nevertheless, with returning normal conditions the industry

will continue to expand as it did before the war, for Argentine maize is able to withstand competitive prices in the world markets, due to the ease of production. Moreover, the growing hog-raising business and the more intensive use of the land for cattle raising will in time create a domestic demand.

The following table shows the details of Argentina's export trade in corn for the years 1912-1918:

EXPORT OF CORN.¹

Countries.	1912	1913	1914	1915	1916	1917	1918 (9months).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Belgium.....	274, 520	275, 445	99, 967				
Brazil.....	10, 254	15, 176	6, 082	5, 678	2, 131	68	502
France.....	178, 740	190, 431	129, 560	147, 622	221, 742	62, 031	23, 932
United Kingdom.....	345, 236	502, 549	390, 026	750, 312	519, 998	183, 622	105, 552
Germany.....	317, 208	276, 366	101, 273				
Italy.....	190, 653	119, 177	108, 132	154, 221	27, 309	54, 147	11, 459
United States.....	18, 346	85, 495	155, 164	98, 244	64, 921	48, 021	29, 449
Spain.....	70, 008	127, 271	64, 603	75, 993	78, 275	16, 668	11, 717
Denmark.....	18, 081	19, 936	24, 707	24, 094	108, 547	28, 584	
Netherlands.....	106, 901	125, 832	67, 968	272, 558	325, 424	62, 337	
Sweden.....	9, 869	9, 397	19, 922	30, 308	25, 536	6, 367	13, 541
Other countries.....	94, 400	111, 650	62, 635	30, 490	92, 127	120, 532	49, 555
To "orders".....	3, 201, 021	2, 948, 226	2, 312, 241	2, 741, 074	1, 407, 900	311, 562	97, 336
Total.....	4, 835, 237	4, 806, 951	3, 542, 280	4, 330, 594	2, 873, 910	893, 939	342, 953

¹ Source: El Comercio Exterior Argentino, 1912-1918.

NOTE.—Exports for calendar year 1918, 631,976 metric tons.

OATS.

As in the case of the other cereals, the production of oats is variable, being affected by the frequent adverse weather conditions. The largest acreage is in the Province of Buenos Aires, with great possibilities of extension to the southwest. Although Argentina produced only 1.5 per cent of the world's supply in the years preceding the war, it practically supplied one-third of the world export trade in oats, shipping abroad a quantity seven times as large as did the United States. The war caused a 30 per cent decrease in its business. The after-war prospects are good, because Argentina has well-established connections with northwestern Europe, which is the region purchasing a large per cent of its exports of this commodity. The following tables show its pre-war and war production and exports:

STATISTICS FOR OATS.¹

Years.	Acerage.	Production.	Yield per acre.	Net exports.	Apparent consumption.
	<i>Acres.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>
1911-1913 (average).....	2, 491, 000	64, 048, 000	26	52, 693, 000	² 11, 355, 000
1914.....	3, 087, 000	50, 981, 000	17	24, 324, 000	26, 657, 000
1915.....	2, 869, 000	49, 397, 000	17	40, 807, 000	8, 590, 000
1916.....	2, 565, 000	75, 280, 000	29	55, 397, 000	19, 883, 000
1917.....	2, 525, 000	31, 781, 000	13	³ 18, 673, 000	13, 108, 000
1918.....	3, 199, 000	⁴ 70, 347, 000	22		

¹ Source: Reference Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, pp. 18-20, 75-77.

² Normal consumption.

³ Calculated from official statistics, El Comercio Exterior Argentino, Boletín 176.

⁴ Estimated.

EXPORT OF OATS.¹

Countries.	1912	1913	1914	1915	1916	1917	1918. (9months).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Belgium.....	115,282	68,007	34,036				
Brazil.....	568	5,657	3,944	27	84	158	164
France.....	43,981	102,898	4,549	47,243	408,773	212,920	49,201
Germany.....	65,419	36,663	7,283				
Italy.....	134,205	95,785	17,882	88,522	134,797	767	618
United Kingdom.....	342,832	314,554	156,772	204,798	179,586	31,847	313,622
United States.....	1,258	2,032	220	3,169	855		
Netherlands.....	82,718	161,857	54,404	6,501	10,402		
Other countries.....	34,063	19,649	2,600	684	32,635	21,458	21,413
To "orders".....	75,706	82,642	72,020	241,853	37,311	4,563	14,087
Total.....	896,032	889,744	353,700	592,797	804,443	271,713	399,105
Imported oats.....				281	193		

¹ Source: El Comercio Exterior Argentino, 1912-1918.

NOTE.—Total exports 1918 were 535,919 metric tons.

LINSEED.¹

Argentina has a bigger area devoted to linseed than have the other large producing countries. Approximate acreages are as follows:

	Acres.
Argentina.....	3,000,000
British India.....	2,800,000
United States.....	2,000,000
Canada.....	1,000,000

In these countries the plant is used for the oil content and not, as in several countries in Europe, for the fiber.

LINSEED, AREA AND PRODUCTION.¹

Crop years.	Area.	Production.	Exports, calendar year.
	<i>Acres.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
1912-13.....	4,281,325	1,082,625	1,016,732
1913-14.....	4,394,995	979,272	841,590
1914-15.....	4,255,810	1,126,000	981,192
1915-16.....	3,998,930	997,000	638,654
1916-17.....	3,206,060	102,000	140,168
1917-18.....	3,232,242	² 562,500	³ 355,886
1918-19.....	⁴ 3,417,616	⁵ 705,000	⁶ 679,000

¹ Source: Latin American Circular No. 52, February, 1919, Department of Commerce, Bureau of Foreign and Domestic Commerce.

² The official estimate for the total 1917-18 crop was placed at this figure in October, 1918. The total exportable surplus was estimated at 410,000 tons.

³ To Nov. 21, 1918.

⁴ This estimate of the area was made in October, 1918.

⁵ Official estimate in January, 1919.

The principal Provinces producing linseed are listed in the following table with the acres planted to linseed in each:

Provinces.	1918-19 crop (acres).	Provinces.	1918-19 crop (acres).
Sante Fe.....	1,304,160	Pampa Central.....	66,690
Cordoba.....	753,350	Other Provinces.....	37,050
Entre Rios.....	642,200		
Buenos Aires.....	514,165	Total.....	3,417,615

¹ Special reference: Latin American Circular No. 52, Feb. 3, 1919, Bureau of Foreign and Domestic Commerce, Washington, D. C.

The figures in the table on area and production show that the acreage decreased during the war, due to the difficulty of obtaining cargo space. The exceptionally poor yield in 1916-17 was caused by adverse climatic conditions. In 1918, however, 185,000 additional acres were planted, in the belief that the Canadian and domestic fields could not supply the huge war demands of the United States. The crop, therefore, was larger than in recent years. Shipping scarcity, however, prevented adequate marketing, and the possibility of disposing of the surplus was a cause for worry to the industry, inasmuch as more than 75 per cent of the crop is usually exported in the seed form. The estimate of the exportable surplus in 1919 was 679,000 metric tons. This quantity is very large when compared with the exports of 342,974 metric tons for the 10 months ending October 31, 1918.

An attempt is being made to crush the seed in Argentina, thereby lessening the cargo space required. Not only would more of the oil be utilized in the Republic if the price was lowered, but the oil cake is a profitable commodity for export. The inability to obtain crushing machinery and the transformation of some of the linseed-oil machinery into edible-oil crushers have hindered the growth of the industry. The fact that the oil cake is not used locally, and that containers are expensive, also prevents fuller development. Early in 1918 five firms, all in Buenos Aires, were engaged in the production of linseed oil. The bulk of the output is shipped to neighboring countries.

With the restoration of shipping facilities the possibility for the foreign sale of Argentine linseed seems brighter, especially in the market of the United States, where great quantities of paints are required for the increased merchant marine and for buildings which have gone unpainted during the war, due to the high cost of linseed oil. The following tables show the great decrease in exports of linseed and an increase in exports of linseed oil during the war.

EXPORT OF LINSEED.¹

Countries.	1912	1913	1914	1915	1916	1917	1918 (6 months).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Brazil.....	2,787	753	277	142	404	599	10
Chile.....		15			425	252	311
Denmark.....		1,185	766	5,271	17,157	9,646	.....
Spain.....			308	2,999	3,953	19,078	343
United States.....	24,350	4,512	2,025	245,701	206,592	71,785	197,182
France.....	18,214	36,659	21,397	8,001	1,499	15,913	2,259
Italy.....	2,774	11,386	6,588	18,162	2,156	.....	.....
Norway.....	7,547	13,343	18,222	7,623	7,290	3,162	.....
Netherlands.....	40,133	71,632	80,759	105,998	128,464	11,039	.....
Portugal.....				1,436	972	.....	.....
United Kingdom.....	55,694	240,551	239,873	204,048	89,779	4,197	22,656
Sweden.....	3,255	7,819	6,032	2,776	36,632	.....	.....
Belgium.....	57,284	130,725	64,222	.....	.....	.....	.....
To "orders".....	230,853	295,780	317,656	378,964	144,513	4,655	19,937
Other countries.....	72,508	202,372	83,455	71	78	982	3,515
Total.....	515,399	1,016,732	841,590	981,192	639,914	141,308	² 246,213
Germany.....		² 191,508	² 77,542				

¹ Source: El Comercio Exterior Argentino, 1912-1918 (6 months).

² Included above in "Other countries."

³ Total exports, 1918, 390,318 metric tons.

LINSEED-OIL TRADE.¹

Years.	Production (metric tons).	Exports (metric tons).	Imports (metric tons).	Imports to Argentina from United States (gallons).
1912.....			435	1,140
1913.....	2,923		517	50
1914.....	2,353	13	282	1,321
1915.....	2,621	659	164	2,035
1916.....	4,130	1,124	(²)	5,694
1917.....	* 5,000	1,525	(²)	6,635
1918.....				3,494

¹ Source: Bureau of Foreign and Domestic Commerce, Latin American Circular No. 52, Feb. 3, 1919.

² Detailed statistics of these imports are not yet available.

* Estimated production.

MINOR CROPS.

RICE.

In spite of the abundance of other cereal crops and the distant source of the imported rice, the per capita consumption in Argentina averages 10 to 15 pounds. The production, which had been increasing, was hastened by the war, and the hope is expressed that the Republic may become self-supporting. Most of the rice is produced in the warmer northern Provinces, especially Tucuman, Santa Fe, and Misiones. Before the war the outside supply came from the Dutch and British Far East possessions, from Italy, and from Japan. The control of shipping by the Allies caused much of this trade to be abandoned, so we have seen in the past few years larger imports from Brazil, the United States, and Japan.

IMPORTS OF RICE.¹

Countries.	1911	1912	1913	1914	1915	1916	1917	1918 (6 months).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Italy.....	22,462	30,488	23,844	23,974	2,193	(²)	(²)	(²)
British possessions.....	13,471	11,006	12,107	5,586	12,291			
Spain.....	275	148	5,626	584	19,073			
United States.....			3,388	10	2,841	1,221	18,444	
Netherlands.....	2,328	2,431	10,865	4,884				
Germany.....	1,661	996		1,043	193			
Other countries.....	3,019	1,828	4,677	2,175	10,731			
Total.....	43,216	46,897	60,507	38,256	47,322	33,255	40,244	12,923

¹ Source: El Comercio Exterior Argentino, 1912-1918 (6 months).

² Statistics not available.

RYE AND BARLEY.

Both of these crops are unimportant commercially. The production of rye is less than 15,000,000 bushels, and the exports amount to less than 1 per cent of the world export trade. During the war the exports were reduced until they became negligible in 1918.

SUGAR.

Sugar has been produced in Argentina for over a century. It is grown in the northern Provinces, especially in Tucuman and Jujuy, where the warm climate is fairly well adapted to the raising of sugar

cane. Sugar beets are not raised in any part of South America, the whole production of sugar being from sugar cane. The crop has not been sufficient to meet the needs of Argentina's consumption demands in the past, except during the two years 1915 and 1916, when the crop was not only sufficient to supply the domestic needs, but also to provide for a net exportable surplus of 58,180 and 53,800 metric tons, respectively. The production fell, however, in 1916 and 1917, and imports again exceeded exports. Graph No. 3 shows the variation in production and consumption from 1911 to 1917.

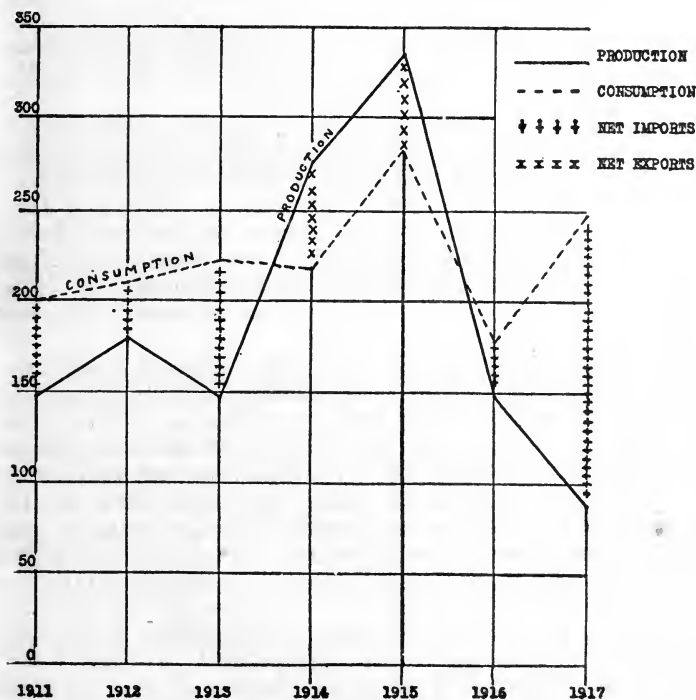
GRAPH No. 3.

PRODUCTION AND CONSUMPTION OF SUGAR IN ARGENTINA.

	Production	Net Imports	Net Exports	Apparent Consumption
1911	148,509	51,834	-	200,343
1912	180,092	29,973	-	210,065
1913	147,249	75,322	-	222,571
1914	276,140	-	58,180	217,959
1915	335,956	-	53,800	282,156
1916	149,299	30,122	-	179,421
1917	86,076*	160,125	-	246,202

Source: Imports and Exports from El Comercio Exterior. Production for harvest years from International Institute of Rome, Consumption calculated from figures given.
*Tornquist - Business Conditions in Argentina - Bul. 142, Aug. 31, 1918.

Thousands of Tons



Sugar plantations suffered from the frost during the cold winter of 1917 and the subsequent great heat. Tucuman, from which a sugar production of 140,000 to 150,000 tons was expected, supplied only 80,000 to 90,000 tons, or less than one-third of the crop of 1915. As a result of the poor sugar harvest there has been a great rise in prices. In the wholesale trade the price of sugar has been \$3.14, \$3.23, and

\$3.31 per 10 kilos, showing an upward tendency. The production of the 1918 crop, however, was good. The cutting of the cane began in May, and it is estimated that the harvest was from 170,000 to 190,000 tons.

The sugar crop, being one which could be entirely consumed in the country, remained practically undisturbed by the shipping situation. The war, however, affected the industry in the matter of labor, which cost considerably more and which was relatively scarce.

The frequently recurring bad weather and the resulting damage to the sugar-cane crop has caused the introduction of a cane with greater resistance to these climatic conditions, known as the "Java cane." It is expected that the adoption of this variety will tend to stabilize production in the near future, and it is probable that Argentina will become self-sufficient in sugar production and may even become a regular exporter before many years.

SUGAR FACTORIES.

The sugar-refining industry began to be of significance toward the middle of the nineteenth century, when it was established in Tucuman. It developed gradually, but it is only during the last 10 years that it has spread to any considerable extent. Considering all of the established sugar mills, there are probably not fewer than 40 of first-class importance working to-day, and of these fully 27 are located in the one Province of Tucuman. There are three in Jujuy, one in Formosa, and five in the Chaco.

This is an industry representing the utilization, directly or indirectly, of a capital of not less than \$73,497,500. To aid this business, the National Government built the first narrow-gauge railroad from Cordoba to Tucuman in 1874 and extended it to Salta and Jujuy by 1891. The extension of the Central Argentine Railroad from Sanchales and of the French Fives-Lille Company Railroad to Tucuman was made in 1890-1892 in order to make these roads carriers of the sugar. The nation has endured high prices necessary for development of this industry.

In spite of the assistance rendered by the National Government in the building of the narrow-gauge road mentioned above, a serious bar to export business still exists in the great distance which divides the productive area from the ports at which ocean steamers congregate in search of freight. The prevailing railroad rates are very moderate, however, averaging little more than the equivalent of 1 cent per ton-mile, so that further economies in transportation can not reasonably be expected. The industry will certainly continue to expand, however, because of needs of the increased population of the country.

The normal factory output of about 250,000 tons is produced 75 per cent in Tucuman, 20 per cent in Salta and Jujuy, and 5 per cent in the Provinces of Santa Fe, the Argentine Chaco, and the Province of Corrientes. The most economic type of sugar factory is that which crushes 1,000 tons of cane in a long day. The market of the country accepts only the whitest sugar.

The machinery used is imported from Great Britain, France, Germany, the Netherlands, and America. For elegance in appearance and first-class workmanship the French plant ranks highest; the Scotch designers secure first position in practical application of scientific

methods to serviceable material; and Glasgow hydro-extractors hold the field. In cane handling the American Hoist & Derrick Co. remains unchallenged in providing the most efficient plant at the least initial cost. The German machinery owes its acceptance to its cheapness and the accommodating terms of payment under which it is sold.

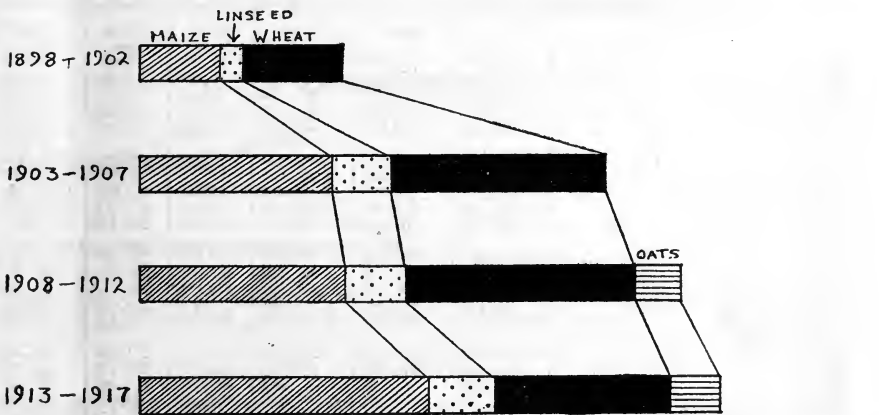
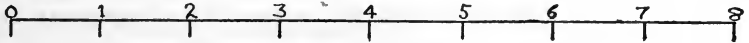
COTTON.

Cotton production is decidedly in the experimental stage. The Government is interested in fostering its increase, as is shown by the offer of the Provincial Museum in Salta to give free samples of the seed, but the land suitable is situated in the hot semitropical Provinces of the north, especially in Chaco. The area of possible cultivation

GRAPH No. 4.

EXPORTS OF PRINCIPAL AGRICULTURAL PRODUCTS

MILLIONS OF METRIC TONS



is very large, being, in fact, as large as that in the United States. The many drawbacks are stated in Commerce Reports of June 7, 1918, as follows:

The raising of cotton in Argentina is not without attendant difficulties. The Territory of Chaco lies in the north central part of the Republic, in the warmest part of the country. It is a wild and unsettled and largely unexplored tract, partly timbered and partly prairie. Living conditions are of the worst; practically all accommodations must be taken with the settler who goes there to live. Transportation is at present mostly confined to traffic on the rivers.

The crop of the Territory of Chaco, which is the principal producer, amounted to 3,500 metric tons in 1918.

GRAPES.

The center of the grape industry lies in the Province of Mendoza, due west from Buenos Aires at the base of the Andes. Dry through-

out the year, the melting snows from the mountains make production possible by means of irrigation. The quality of the Argentine wines is excellent, but they lack the reputation of those produced in Europe. During the war the exports to her neighbors, Uruguay, Paraguay, and Brazil, have increased. The heavy imports of foreign wines in normal times show the extent of the local market. Two by-products of the grape industry are becoming articles of commerce, viz, grape sugar (argols, or wine lees) deposited by the grape juice, which is known in trade as cream of tartar, and oil pressed from the seed. A new company, largely financed by Americans, has located near Mendoza (1918) and purchases seeds from the near-by vineries for crushing.

TRADE IN AGRICULTURAL PRODUCTS.

The following table shows the export trade in the chief agricultural products during the last 20 years:

EXPORTS OF PRINCIPAL AGRICULTURAL PRODUCTS.¹

Year.	Corn.	Linseed.	Wheat.	Oats.	Bran.	Flour.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
1898.....	717, 105	158, 904	645, 161	1, 107	52, 935	31, 933
1899.....	1, 116, 276	217, 713	1, 713, 429	5, 367	78, 830	59, 464
1900.....	713, 248	223, 257	1, 929, 676	7, 619	73, 314	51, 203
1901.....	1, 112, 290	338, 828	904, 289	2, 225	92, 630	71, 742
1902.....	1, 192, 829	340, 937	644, 908	19, 842	104, 677	39, 040
1903.....	2, 104, 384	593, 601	1, 681, 327	26, 245	132, 192	71, 980
1904.....	2, 469, 548	880, 541	2, 304, 724	29, 156	154, 456	107, 298
1905.....	2, 222, 289	654, 792	2, 868, 281	17, 167	176, 664	144, 760
1906.....	2, 693, 739	538, 496	2, 247, 988	51, 661	178, 517	128, 998
1907.....	1, 276, 732	763, 736	2, 680, 802	143, 566	209, 125	127, 499
1908.....	1, 711, 804	1, 055, 650	3, 636, 294	440, 041	208, 309	113, 500
1909.....	2, 273, 412	887, 222	2, 514, 130	421, 352	207, 238	116, 487
1910.....	2, 660, 225	604, 877	1, 888, 592	370, 948	250, 777	115, 408
1911.....	125, 185	415, 805	2, 285, 951	511, 389	214, 634	118, 486
1912.....	4, 835, 237	515, 399	2, 629, 056	896, 032	325, 226	131, 580
1913.....	4, 806, 951	1, 016, 732	2, 812, 14v	889, 744	274, 058	124, 649
1914.....	3, 542, 280	841, 590	980, 525	353, 700	230, 934	67, 325
1915.....	4, 330, 594	981, 192	2, 511, 514	592, 797	177, 661	116, 049
1916.....	2, 873, 910	639, 914	2, 294, 876	804, 443	29, 085	144, 290
1917.....	893, 939	141, 308	935, 828	271, 713	19, 872	112, 465
1918 ²	342, 953	324, 471	2, 771, 619	399, 105	1, 931	119, 598

¹ Source: El Comercio Exterior Argentino, Boletín 179, p. 99.

² First nine months.

The great variations in the exports of corn, linseed, and wheat are shown—for example, the small wheat exports in 1901, 1902, and 1903, also in 1914; the corn exports in 1900 and 1911; and the difference between exports of linseed in 1912 and in 1913.

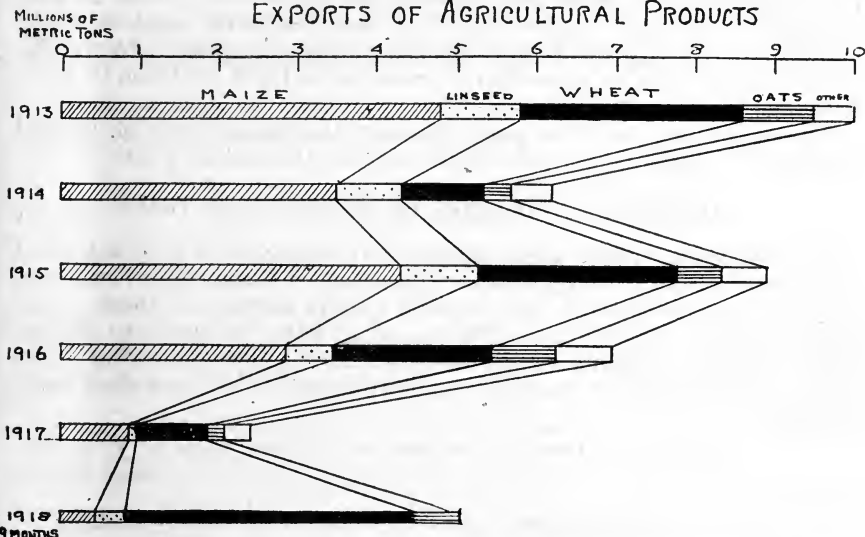
Graph No. 4, giving five-year averages, shows the general tendency of corn, linseed, and wheat exports to increase, and the beginning of oats in the period 1908–1912 as an important export.

EXPORTS OF PRINCIPAL AGRICULTURAL PRODUCTS: FIVE-YEAR AVERAGES.

Years.	Corn.	Linseed.	Wheat.	Oats.	Bran.	Flour.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
1898-1902.....	907,349	255,927	1,167,492	7,232	80,489	50,676
1903-1907.....	2,153,338	686,233	2,356,624	53,559	170,190	116,107
1908-1912.....	2,321,172	695,790	2,589,804	527,952	241,236	119,092
1913-1917.....	3,289,534	724,147	1,906,978	582,479	146,312	112,955

GRAPH No. 5

EFFECT OF THE WAR ON THE EXPORTS OF AGRICULTURAL PRODUCTS



NOTE.—The bar representing exports in the first nine months of 1918 is three-fourths the width of bars representing whole years. The length of the bar is extended by one-third, so that the total area represents the true exports during the nine months, while the length gives an easier comparison with former years, since it would be equivalent to exports for the year if exports during the last three months were equal to one-third of the amount exported in the first nine months.

Graph No. 5 represents metric tons of agricultural products exported during the war period. The decrease in 1914 indicates the first shock of the war. By 1915 exports of all the important products had picked up again. In 1916 the scarcity of shipping limited exports, especially of corn, wheat exports being cut comparatively slightly and exports of oats increasing. The great decrease in 1917 was due, in the case of corn, to the scarcity of shipping, corn not being a commodity important enough to the Allies to warrant the use of the limited supply of ships. The year 1917 was a poor crop year, as previously stated, and wheat production was very low in Argentina. The good crop of 1918 supplied many tons to the allied countries, while a large surplus of corn accumulated in Argentina and remained unshipped.

Agricultural products which are imported in considerable quantities are rice, sugar (during deficiency years), coffee, tea, cocoa, fruits, and tobacco.

III. ANIMALS AND ANIMAL PRODUCTS.

IMPORTANCE OF LIVE-STOCK INDUSTRIES.

Cattle and sheep raising have been the most important industries in Argentina for many years, contributing from 31 to 68 per cent of the value of the export trade every year since 1898. Like all new countries, relatively undeveloped in manufacturing and sparsely populated, Argentina is able to produce a large surplus of foodstuffs and other animal and agricultural products and will continue to do so for many years in the future.

The graph and table on page 42 show the importance of animal products in Argentine export trade during the last 20 years.

ARGENTINA'S POSITION IN WORLD MEAT TRADE.

The preceding pages have shown that Argentina's production of wheat and maize, though smaller than that of some other countries, provides a large share of the world's export surplus of these staple commodities. The same condition exists with reference to Argentina's live-stock figures and its meat exports. The following three tables show Argentina's position as a producer of the three chief meat animals:

ARGENTINA'S PRE-WAR POSITION AS A CATTLE RAISER.¹

Countries.	Date of census quoted.	Number of cattle.
1. British India.....	1914	56,592,000
2. United States.....	1913	37,165,000
3. European Russia and Poland.....	Dec., 1913	30,705,000
4. Brazil.....	June 1, 1914	25,867,000
5. Argentina.....	Dec., 1913	26,874,000
6. Germany.....	1910-11	16,479,000
7. Austria-Hungary, including Croatia and Slavonia.....	1914	14,788,000
8. France.....	1914	12,145,000
9. United Kingdom.....	1913	11,484,000
10. Australia.....		

¹ Source: Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918, p. 56.

ARGENTINA'S POSITION IN SHEEP RAISING.¹

Countries.	Date.	Number of sheep.
1. Australia.....	Dec. 31, 1915	69,706,000
2. United States.....	Jan. 1, 1917	48,483,000
3. Argentina.....	June 1, 1914	43,225,000
4. Russia.....	1914	37,240,000
5. South Africa.....	Dec. 31, 1915	31,434,000
6. New Zealand.....	Jan. 31, 1917	24,753,000
7. United Kingdom.....	June 4, 1917	24,026,000

¹ Source: Yearbook of U. S. Department of Agriculture, 1917.

ARGENTINA'S PRE-WAR POSITION AS A PRODUCER OF SWINE.¹

Countries.	Date.	Number of swine.
1. United States.....	1914	58,933
2. Germany.....	Dec., 1913	25,592
3. Brazil.....	Dec., 1913	18,399
4. Austria-Hungary, including Croatia-Slavonia.....	1910-11	14,013
5. Russia (European) and Poland.....	1913	12,487
6. United Kingdom.....	1914	3,940
7. Canada.....	1913	3,488
8. Argentina.....	June, 1914	2,901

¹ Source: Handbook of Food Statistics in Relation to the War, United States Food Administration, 1918

NOTE.—Argentine exports of hog products have been comparatively small in the past. It is probable they will become a more important item in her meat export trade in the future.

As an exporter of meats and meat fats, however, Argentina ranks first among the countries of the world.

ARGENTINA'S POSITION AS A MEAT EXPORTER.¹

[Thousands of pounds.]

Countries.	1914	1915	1916	1917
Argentina.....	1,207,649	1,196,964	1,427,665	1,663,440
United States ²	* 1,053,404	1,152,368	1,509,539	1,553,997
Uruguay.....	218,348	291,303	233,756	305,300
Brazil.....	2,372	21,180	93,214	188,164

¹ Holmes: Meat Situation in the United States; U. S. Department of Agriculture, Report No. 109, Office of the Secretary.

² Net exports for fiscal year.

* Average 1912-1914.

As an exporter of wool, Argentina is surpassed only by Australia.

LIVE-STOCK RAISING.

AREAS.

(Unlike the production of food crops, which has been restricted to certain districts, the raising of live stock has been carried on in each of the Provinces and Territories, as shown in the census of 1914. Nevertheless, this industry is centered in certain districts. The Provinces of Buenos Aires, Santa Fe, Entre Rios, Corrientes, and Cordoba together raised 82 per cent of the cattle; Buenos Aires 45 per cent of the sheep and 50 per cent of the swine.) The accompanying tables show the Argentine cattle situation.

The world cattle statistics of recent years show an increase smaller proportionally than the growth of population. This is not the case in Argentina. Its large area and small population make it a source of food supply. For the next few years, however, exports of meat products will decrease slightly, because more live stock has been slaughtered recently than the industry can bear.

HEAD OF LIVE STOCK.

Animals.	Census of 1908. ¹	Census of 1913. ¹	Estimate, 1918. ²
Cattle.....	29, 116, 625	30, 796, 000	25, 866, 763
Sheep.....	67, 211, 754	81, 485, 000	43, 225, 452
Swine.....	1, 403, 591	3, 197, 000	2, 900, 585
Goats.....	3, 945, 086	4, 564, 000	4, 325, 280
Horses.....	7, 531, 376	9, 366, 000	8, 323, 815
Mules.....	465, 037	584, 000	565, 069
Total.....	109, 673, 609	129, 992, 000	85, 206, 964

¹ Source: *Annuaire International de Statistique Agricole*, 1915-16, Rome, pp. 240, 241.

² Source: Bunge, Riqueza y Renta, p. 59.

DISTRIBUTION OF LIVE STOCK, 1918.¹

Regions.	Cattle.	Regions.	Sheep.	Regions.	Swine.
Buenos Aires.....	9, 090, 536	Buenos Aires.....	18, 776, 260	Buenos Aires.....	1, 394, 042
Corrientes.....	3, 543, 395	Entre Rios.....	4, 304, 305	Santa Fe.....	474, 326
Santa Fe.....	3, 179, 260	Santa Cruz.....	3, 940, 616	Cordoba.....	333, 793
Cordoba.....	2, 540, 313	Río Negro.....	2, 802, 282	Entre Rios.....	112, 007
Entre Rios.....	2, 334, 372	Corrientes.....	2, 348, 584		
		Pampa.....	2, 282, 823		
Other.....	5, 178, 887	Chubut.....	2, 047, 037	Other.....	586, 417
		Other.....	6, 723, 545		
Total.....	25, 866, 763	Total.....	43, 225, 452	Total.....	2, 900, 585

¹ Source: Bunge, Riqueza y Renta, p. 59.

CATTLE.

Argentina is surpassed only by British India, the United States, Brazil, and Russia in the number of cattle raised. There was a considerable decrease in the number of live stock in Argentina during the war, which was caused by the high prices obtained for the products and the resulting tendency to sacrifice good breeding material at the slaughterhouses. Such a condition is especially unfortunate in Argentina, inasmuch as the Republic has had such a strenuous period of 40 or more years trying to develop its tough, bony, native stock into an edible product. To-day the live-stock people take an interest in the breeds, and at the annual Palermo live-stock show much pride is taken in exhibiting the cattle. Until 1915 England practically dominated the import trade in pedigreed stock. During the years 1911-1914 more than 12,000 head were derived from that source. Among these the shorthorns and the Herefords predominated. In the past three years the American Durham shorthorn has become a favorite.

Sections of Argentina are undergoing the same changes in methods of cattle raising as those experienced in the United States. In the regions where imported breeds are found the ranching system has been replaced by stock farms, with alfalfa as the fodder. This transformation has been caused by smaller holdings and because more care is devoted to the higher-valued animals. In the neighborhood of Buenos Aires there are large dairy herds.

SHEEP.

Argentina at the present time is surpassed by Australia and the United States in the number of sheep raised. In the years before agricultural crops had assumed such a position of importance live-stock production was the leading industry, even in the garden Provinces of Buenos Aires, Santa Fe, and Entre Rios. The stability of the sheep-raising industry is shown in the figures for 1918, which give the Province of Buenos Aires 18,776,260 sheep, 45 per cent of the total. The sheep of these northern Provinces are meat producers, although the original stock furnished the "criollo" wool used for carpets. Pedigreed stock has been imported, especially the Rambouillets and the Lincolns. Mutton exports, compared with beef, are relatively small, owing in part to the fact that Australia and New Zealand have such well-established connections for the sale of this product in western Europe.

(The varied climate of Argentina furnishes an adaptable region for every breed. In the southern Territories of Santa Cruz, Rio Negro, and Chubut—too cold for agriculture—wool is produced extensively. Along the coast and river valleys and near the base of the Andes land is available only in the elevated regions, which afford summer grazing but poor winter conditions. The Government is investigating the huge grants of land in this section. As a result, there may be a redistribution, and the pioneer settler may find new opportunities in wool production in this region.)

SWINE.

The raising of hogs has never been popular in the Republic, yet the war statistics show a smaller relative decrease in the number than in the case of other animals. (The industry will probably grow rapidly, because the hogs not only offer a salable commodity, but suggest a method of utilizing the surplus of the corn crop. Armour's equipment for handling 1,000 head of swine daily may be an inducement for large production.)

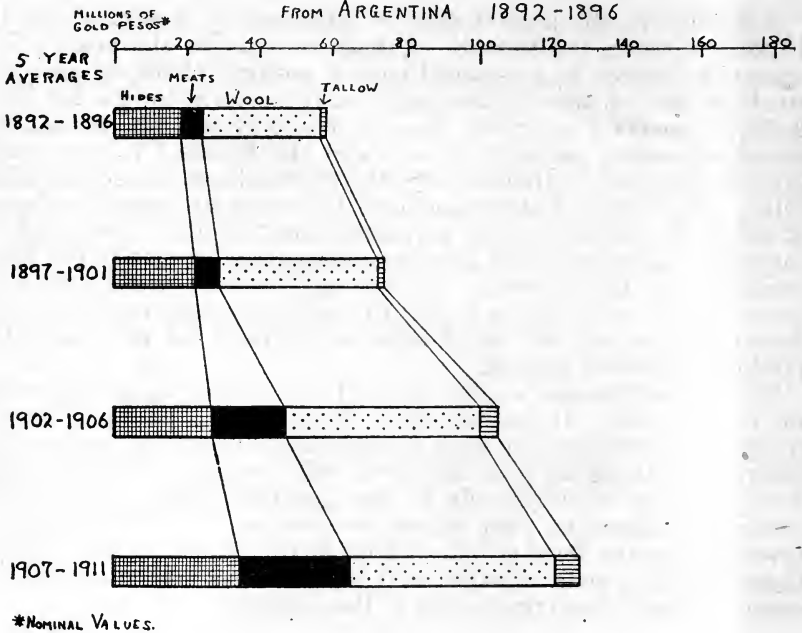
FOREIGN TRADE IN ANIMAL PRODUCTS.

Animal products, which figure in Argentina's trade, are of six classes as follows: Live animals; frozen, chilled, or preserved (canned) meats; dairy products; hides; wool; and minor by-products, such as tallow, margarine, bones, etc.

Cattle and sheep raising in Argentina have been carried on from the first, chiefly for the products which have figured largely in its export trade, because of the small population and the extensive facilities in good grazing land. In the early years, when there was no method of shipping meat over long distances, the chief animal products figuring in foreign trade were live animals, hides, wool, tallow, and bone, meat often being destroyed because of the impossibility of placing it in foreign markets. Extract of beef became an important item, together with jerked and salted beef, which could be shipped to Europe without being destroyed by the long journey. With the introduction of refrigerating methods and faster ocean transportation, meats, principally frozen beef, became the leading animal export. Graphs Nos. 6 and 7 show the development of the meat exports and their relation to these other products.

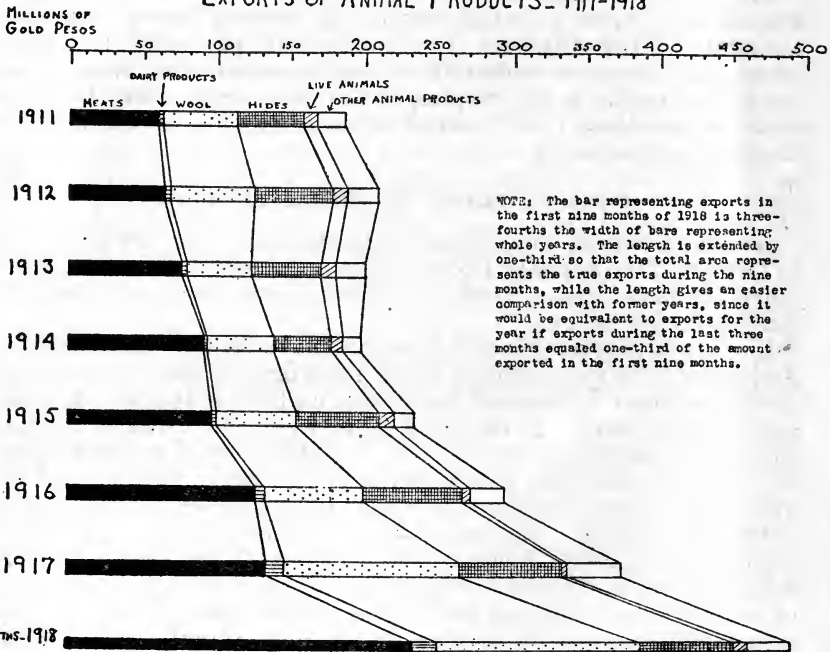
GRAPH No. 6

EXPORTS OF PRINCIPAL ANIMAL PRODUCTS



GRAPH No. 7

EXPORTS OF ANIMAL PRODUCTS - 1911-1918



EXPORTS OF PRINCIPAL ANIMAL PRODUCTS, 1892-1911.¹[Nominal values in gold pesos.²]

Years.	Hides.	Meat.	Wool.	Tallow.
1892.....	21,185,694	7,039,712	44,326,060	2,263,729
1893.....	14,980,343	6,742,655	25,006,348	2,549,763
1894.....	17,985,032	6,832,005	28,946,933	2,809,450
1895.....	21,985,759	6,231,532	31,029,532	3,807,751
1896.....	17,139,591	5,498,106	33,516,049	3,179,326
1897.....	19,486,152	4,927,035	37,450,244	2,656,048
1898.....	20,786,767	5,057,684	45,584,603	2,862,512
1899.....	25,090,578	5,001,525	71,283,619	2,205,593
1900.....	22,613,020	9,366,970	27,991,561	2,805,367
1901.....	23,251,315	12,802,815	44,666,483	2,902,715
1902.....	26,181,991	16,551,185	45,810,749	6,209,038
1903.....	25,597,370	16,666,230	50,424,168	4,735,579
1904.....	24,657,176	18,940,141	48,355,002	4,012,083
1905.....	30,509,833	26,052,136	64,312,927	5,323,005
1906.....	29,504,717	21,985,978	58,402,771	3,487,459
1907.....	26,312,984	21,419,793	59,252,948	4,813,778
1908.....	23,535,769	25,509,667	47,246,783	6,033,774
1909.....	40,305,069	20,358,475	59,921,951	7,573,230
1910.....	41,382,501	33,905,058	58,847,699	9,536,974
1911.....	44,359,065	42,306,488	50,494,027	11,768,900

FIVE-YEAR AVERAGES.

1892-1896.....	18,655,284	6,508,802	32,564,984	2,922,004
1897-1901.....	22,245,566	7,431,206	45,395,302	2,686,447
1902-1906.....	27,290,217	20,039,135	53,461,123	4,953,433
1907-1911.....	35,179,077	30,511,896	55,152,681	7,945,331

¹ Source: Anuario de Estadística, 1911; preface, p. XVI.² Nominal values are used here because real values have not been calculated for years prior to 1910. Real and nominal values differ only slightly before 1911.VALUE OF ARGENTINA'S EXPORTS OF ANIMALS AND ANIMAL PRODUCTS.¹

[Real values in gold pesos.]

Products.	1911	1912	1913	1914
Meats.....	60,931,362	65,000,465	76,373,504	91,009,752
Dairy products.....	1,390,605	3,157,489	3,051,492	2,860,177
Wool.....	50,494,027	58,148,664	45,270,016	46,967,658
Hides.....	44,443,881	52,664,418	46,671,508	38,416,821
Live animals.....	9,639,891	11,479,996	9,787,370	7,168,585
Other animal products.....	19,270,432	19,012,800	19,724,245	12,271,750
Total.....	186,170,198	209,463,892	200,878,135	198,094,743
Products.	1915	1916	1917	1918, 9 months.
Meats.....	97,623,275	129,277,603	137,085,392	175,738,506
Dairy products.....	3,621,603	5,194,021	11,626,270	12,952,820
Wool.....	55,579,000	66,229,428	118,382,532	102,873,164
Hides.....	53,787,445	67,309,142	70,280,627	40,317,056
Live animals.....	10,384,812	6,944,766	4,902,288	7,729,114
Other animal products.....	13,851,549	20,623,400	33,758,158	30,108,026
Total.....	234,847,684	295,578,360	376,035,267	360,718,656

¹ Source: El Comercio Exterior Argentino, Boletín 176; Anuario de Estadística 1911, 1912, 1913, 1914, and 1915.

LIVE ANIMALS.

The live animals exported are cattle, asses, mules, horses, sheep, and a few llamas and hogs. By far the largest item in the exportation of live animals is cattle, amounting to 6,136,299 pesos gold out of the 7,729,114 pesos gold of exports of all live animals during the first nine months of 1918. Almost all of these were destined to South American countries, especially Uruguay, to which were sent 74,101 head of cattle during the first nine months of 1918 and 45,019 during the year 1917.

Dairy products have begun to figure in export trade recently. Hides have always been an important factor, while Argentina's wool exports have more than doubled in value since 1911 and increased in quantity from 120,000 tons in 1913 to 127,000 tons in 1917.

MEAT PRODUCTION AND TRADE.

In the early days, when exports were few, cattle were shipped to Europe on the hoof. In other cases the saladeros shipped their salted and dried beef to other tropical countries. With the introduction of refrigerating processes came great possibilities in the development of the frigorificos or refrigerating plants. At first frozen meats were shipped, later came the chilled meats, when refrigerating vessels were placed in the service. The chilled meat commands a higher price, due to a better flavor. The business of slaughtering the live stock and preparing them for shipment has developed into the leading industry of the country. This development is due in part to the erection of facilities for slaughtering and refrigerating by American packers, who were suffering from the decreasing supply of cattle in the United States. In 1901, when the exports from the United States began to decline materially, the exports of Argentine beef began to assume importance; since that date the increase has been steady and rapid, 559,216 tons being exported in 1917.

England has been the principal market for Argentine beef, although the war demands have changed conditions somewhat. Italy and France have imported large quantities of frozen beef for their armies, and the United States has recently become a meat importer.¹

One of the causes of the development of the refrigerating industry is the closing of English ports against cargoes of live cattle, for fear of anthrax. The refrigerating companies conquered the English market, which purchases the greater part of the Argentine frozen meat. Steps have been taken with a view to reopening the ports under a pledge of sanitary measures; but nothing decisive has been done on account of the protests of English cattle breeders, and also of some Argentine refrigerating companies which have been created by English capital.

Of the 11 large frigorificos doing business in the Republic, only 2 are controlled by Argentine capital. The English early sought this lucrative trade, but the big American packers established frigorificos of such strength that the British concerns sent a joint appeal to the Argentine Government in 1913 to prevent the excessive exportation by the American concerns. The Government, however, found no

¹ By no means a "net importer." Beef is the principal meat imported; it is also exported in much larger quantities.

abuses in the American methods. With the first shock of the war many of the refrigerating plants were forced to close, but in the autumn of 1914 the British Government contracted for 15,000 tons of frozen and chilled meat per month for 12 months. An agreement, similar to the wheat convention, seems not to have been necessary, because the British Government contracted for 80 per cent of the output of the British frigorificos.

Swift & Co. were the first United States packers to enter Argentina, and they control the Compañía Swift de la Plata. This company reported paid-up capital of \$7,237,500 in 1915. Armour & Co. opened a new frigorifico in 1915 at La Plata, which is said to be the largest in South America; its capital is \$9,650,000. The company is, technically, an Argentine concern and is known as the Sociedad Anónima Frigorífico Armour de la Plata. The Sociedad de La Blanca, with a capital of \$4,342,500, is also an Argentine company, controlled by Morris and Armour. The Frigorífico Wilson de la Argentina, at Valentin Alsina, Province of Buenos Aires, is also controlled by United States capital.

The following table, listing the 11 frigorificos in Argentina and giving their exports of frozen and chilled beef during the first half of the two years 1917 and 1918, shows the great increase in the exports of frozen beef by Swift & Co., and by other United States companies, a similar increase for British companies, and the relation between the products of companies controlled by British, American, and Argentine capital.

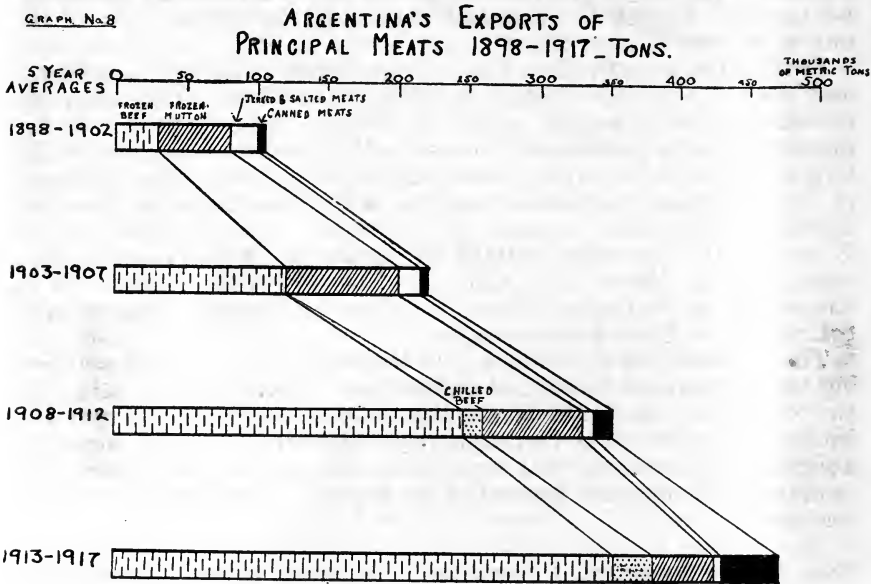
MEAT-PACKING COMPANIES (FRIGORÍFICOS) AND THEIR EXPORTS, JANUARY-JULY, 1917, AND JANUARY-JULY, 1918.¹

Frigorificos.	January-July, 1917.			January-July, 1918.		
	Frozen sheep and lambs.	Frozen beef.	Chilled beef.	Frozen sheep and lambs.	Frozen beef.	Chilled beef.
Argentine:	<i>Carcasses.</i>	<i>Quarters.</i>	<i>Quarters.</i>	<i>Carcasses.</i>	<i>Quarters.</i>	<i>Quarters.</i>
Cla. Sansinens.....	142,529	130,095	26,044	103,755	155,112	.....
La Fr. Uruguaya.....	25,785	127,367	11,441	25,582	130,970	254
Total Argentine.....	168,314	257,462	37,485	129,337	286,082	254
British:						
Las Palmas.....	224,139	835,386	66,409	103,111	779,716	3,083
Smithfield & Argentina Meat Co.....	47,690	146,795	24,732	35,235	173,395	1,409
Anglo S. Am. Meat Co.....	65,073	108,808	.....	42,496	252,600	.....
Total British.....	336,902	1,090,254	91,141	180,842	1,205,711	4,492
American:						
La Blanca.....	123,087	385,758	25,952	41,431	441,494	.....
Swift de la Plata.....	124,616	473,732	126,971	146,327	743,590	5,055
Fr. Wilson de la Argentina, S. A.....	133,774	160,195	24,782	60,562	199,043	4,300
Fr. Armour de la Plata, S. A.....	188,120	213,255	50,900	141,463	477,394	7,155
Swift de Montevideo, S. A.....	41,284	441,402	15,047	7,258	27,111	.....
Total American.....	610,831	1,874,342	243,652	397,068	1,888,632	16,510

¹ Source: Commerce Reports, Nov. 14, 1918.

As clearly shown in graphs Nos. 8 and 9 and by the following tables, frozen and chilled meats, especially frozen beef, have become by far the most important meats exported, while salted and jerked beef exports have slowly diminished in importance. The salt-meat or "saladeros" industry is carried on principally in Buenos Aires, Santa Fe, Entre Rios, and Corrientes, and exports of this kind of meat are chiefly to Latin America. During the war the demand

for beef—especially frozen and canned beef—in Europe caused Argentina's exports of meats to increase. Graph 9 shows that the increase consisted of frozen beef and canned meats. The particular advantages of canned meat for armies in the field is responsible for this fact.



EXPORTS OF MEATS, 1898-1917.¹

Years.	Frozen beef.	Chilled beef.	Frozen mutton.	Pre-served meat.	Salted and jerked meat.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
1898.....	5,867		59,833	1,623	22,242
1899.....	9,079		56,627	1,816	19,164
1900.....	24,590		56,412	1,405	16,449
1901.....	44,904		63,013	946	24,296
1902.....	70,018		80,073	1,644	22,304
1903.....	81,520		78,149	3,742	12,991
1904.....	97,744		88,616	2,429	11,726
1905.....	152,857		78,351	2,488	25,288
1906.....	153,809		67,388	1,259	4,650
1907.....	138,222		69,785	1,595	10,649
1908.....	174,563	6,252	78,846	1,727	6,666
1909.....	209,435	1,222	66,495	6,390	11,622
1910.....	245,267	8,441	75,102	12,082	9,442
1911.....	297,738	15,096	85,916	15,413	12,120
1912.....	317,620	25,231	70,175	17,699	8,824
1913.....	332,054	34,175	45,928	12,574	3,910
1914.....	328,278	40,690	58,688	13,087	2,383
1915.....	351,036	11,703	35,035	31,944	213
1916.....	411,547	16,153	51,318	44,569	1,121
1917.....	355,842	38,995	39,820	100,784	7,613
1918 (6 months.).....	231,432	1,545	18,054	85,806	1,477

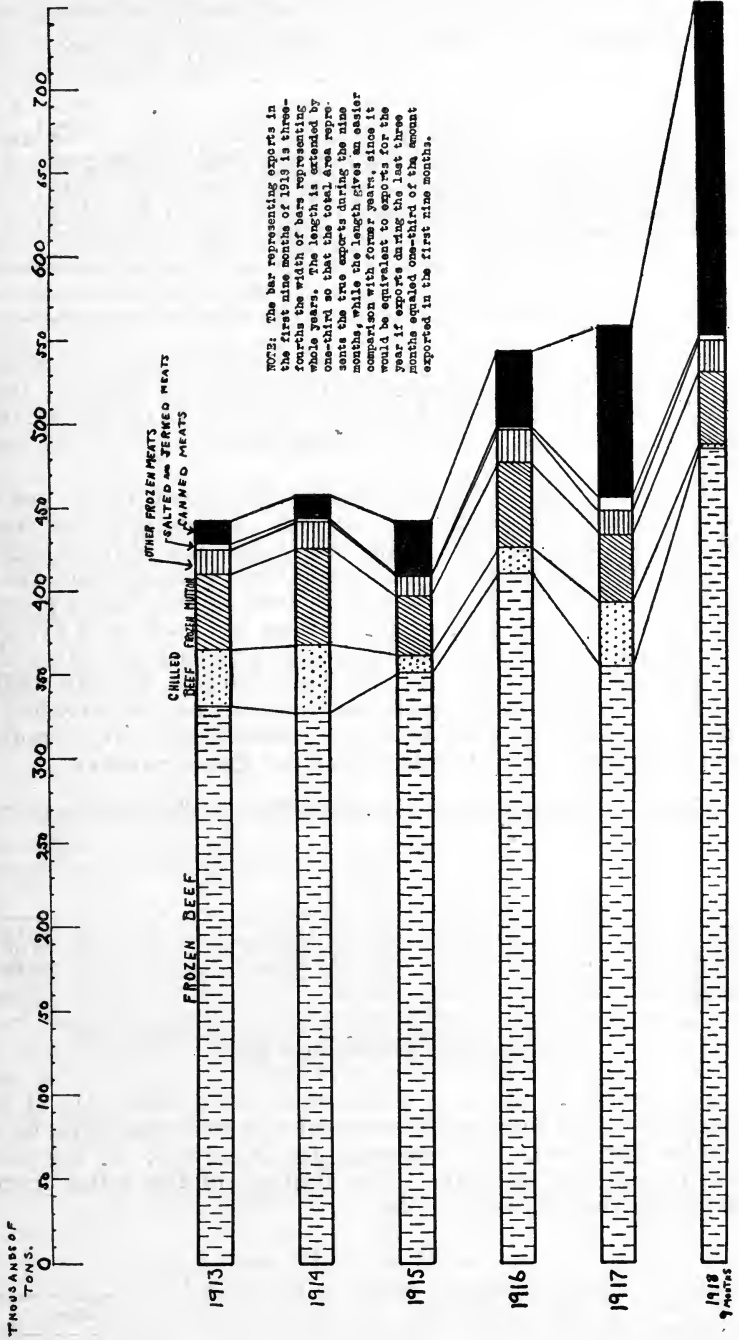
FIVE-YEAR AVERAGES.

1898-1902.....	30,819		63,191	1,486	20,891
1903-1907.....	124,830		76,457	2,302	13,061
1908-1912.....	248,924	11,248	73,307	10,662	9,735
1913-1917.....	355,751	28,343	46,158	40,591	3,051

¹ Source: El Comercio Exterior Argentino, Boletín No. 176, p. 423.

EFFECT OF THE WAR ON EXPORTS OF MEATS FROM ARGENTINE

GRAPH No. 2.



NOTE: The bar representing exports in the first nine months of 1918 is three-fourths the width of bars representing whole years. The length is extended by one-third so that the total area represents the true exports during the nine months, while the length gives an easier comparison with former years, since it would be equivalent to exports for the year if exported during the first three months, equalled one-third of the amount exported in the first nine months.

9 Months

EXPORTS OF MEATS FROM ARGENTINA, 1911-1918.¹

Products.	1911	1912	1913	1914	1915	1916	1917	1918 (9 months).
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Frozen beef.....	297,738	317,620	332,054	328,278	351,036	411,547	355,842	364,963
Chilled beef.....	15,096	25,231	34,175	40,690	11,703	16,153	38,995	1,545
Frozen meats (mutton, etc.).....	85,916	70,175	45,928	56,688	35,035	51,317	39,820	32,642
Frozen pork.....				334	887	1,345	764	548
Salted and jerked meat.....	12,120	8,824	3,910	2,383	213	1,120	7,613	2,423
Canned meat.....	16,127	18,331	13,014	13,590	32,514	45,197	102,153	149,656
Miscellaneous frozen meat.....	14,567	15,661	14,005	15,890	11,158	18,069	14,029	13,786
Total.....	441,564	455,842	443,086	459,853	442,546	544,748	559,216	565,563

¹ El Comercio Exterior Argentino en 1916 y 1917, Boletín No. 176, p. 130.

Frozen beef will continue to be the chief meat exported, and it is probable that canned-meat exports will not continue to increase. Chilled beef, on the other hand, has not been in much demand during the war, but will probably become more popular and increase in importance.

The great increase in the demand for canned meats has been one of the interesting results of the war. During the war many complaints were registered with the Argentine Government against the foreign frigoríficos. The stock-farm people made the peculiar objection that the slaughterhouses were paying better prices for the lean cattle of the grazing lands than for their own fat live stock. The public complained because it was paying too much for meat. The defense put forth by the meat packers is important. They said that limited cargo space and the need for a convenient food for military purposes had increased enormously the exportation of tinned meats. The statistics bear out this contention.

EXPORTS OF CANNED MEATS (PRESERVED MEATS AND PRESERVED TONGUES).¹

Years.	Tons.	Value (gold pesos).	Years.	Tons.	Value (gold pesos).
1910.....	13,030	2,260,078	1915.....	32,514	11,373,638
1911.....	16,127	3,834,879	1916.....	45,197	18,748,916
1912.....	18,331	3,604,218	1917.....	102,153	37,637,011
1913.....	13,014	2,285,158	1918.....	(?)	(?)
1914.....	13,590	3,830,956			

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 130.

² Estimated 50 per cent increase over 1917.

The results of this new industry were twofold: (1) It created a demand for the lean cattle and sent the price up, while the demand for the farm-fed animal remained nearer normal; (2) a great demand was created for tin plate. The imports of the latter increased as shown in the following table:

IMPORTS OF TIN PLATE.¹

Years.	Kilos.	Pounds.
1914.....	10,556,186	23,272,168
1915.....	24,640,817	54,323,145
1916.....	28,180,021	62,125,674
1917.....	31,570,268	69,599,813
1918 (9 months).....	37,361,551	82,367,275

¹ Source: El Comercio Exterior Argentino.

Early in the war Great Britain furnished about 75 per cent of the tin plate. The exports from the United States increased so rapidly in 1918 that a rigid watch was kept on its final destination, because of the necessity of conserving this commodity.

DAIRY INDUSTRY.

Dairying and cheese making represent one of the largest industries in Argentina, employing probably about 30,000 people. The latest available official figures show some 8,160 establishments in this line in the whole Republic, with an output of about 22,359,580 pounds of butter, 14,940,916 pounds of cheese, and 10,189,092 pounds of casein. Production has increased since these figures were compiled, as the home consumption of butter is established at 15,428,000 pounds, which would make the total production about 41,876,000 pounds in 1918, while the exports of casein in 1917 reached 10,704,000 pounds.

Since 1911 the imports of cheese declined from 10,841,476 pounds to almost nothing, while the exports of Argentine cheese increased from almost nothing in 1911 to 6,012,512 pounds in 1917, and for the first half of 1918 the exports of cheese reached a total of 8,641,884 pounds. This amount would have been greater except for the prohibitive measures of the United States. It is understood that British investors are undertaking to buy all the butter in Argentina available for export. There is still much room for the expansion of the butter and cheese industry.

Argentine imports and exports of cheese from 1912 to 1917 are shown in the following table, which gives quantities in pounds:

Years.	Imports.	Exports.	Years.	Imports.	Exports.
1912.....	11,846,500	4,408	1915.....	7,304,056	13,224
1913.....	11,119,180	15,428	1916.....	3,131,884	502,512
1914.....	8,450,136	8,816	1917.....	689,852	6,012,512

Source: El Comercio Exterior Argentino, Boletín 176, p. 109.

The exports of butter have recently undergone remarkable expansion. Most of these go to England, which contracted to buy all the butter produced in Argentina until April, 1919, and it was expected the agreement would be renewed. Over 30,000 pounds were shipped in 1918, an increase of 283 per cent since 1914. Large exports of butter go also to other Latin American countries. The following table shows the value of Argentina's exports of dairy products:

VALUE OF EXPORTS OF DAIRY PRODUCTS FROM ARGENTINA, 1914-1918.

[In gold pesos.]

Products.	1914	1915	1916	1917	1918 (9 months).
Butter.....	2,256,114	3,087,948	4,326,933	7,799,390	10,443,861
Cheese.....	745	1,211	125,241	2,243,877	2,031,633
Cream.....	585,067	521,514	590,296	1,385,718	468,479
Total.....	2,860,177	3,621,603	5,194,021	11,626,270	12,952,820

WOOL.

In 1910 Argentina was second only to Australia as a wool producer, when its clip was 18 per cent of the world's annual production. By 1916 it produced only 13 per cent, and since that date it has steadily declined as a producer of wool, its percentage of world production being now about 6 per cent. This is due to the fact that specialization in sheep raising for meat has proved more and more to be one of the industries especially suited to Argentina's economic situation and foreign trade.

Though Argentina has been surpassed by the United States in recent years as a producer of wool, its exports have constantly been a large factor in foreign trade, being second only to wool exports from Australia, while the United States has imported increasing amounts.

Most of the exports from Argentina are in the form of unwashed wool. The amount shows little variation during the war, but the destination has changed considerably. In 1913 France and Germany each received about 33 per cent and the United States 6 per cent. Of the 254,866,000 pounds exported in 1917 the United States received 177,820,000 pounds, or 60 per cent. In the first 10 months of 1918 the United States took 133,900,000 pounds, or 73 per cent, showing the importance of Argentina as a source of wool supply for the United States during the war.

The following table shows the exports of unwashed wool from Argentina, 1913 to 1917:

EXPORTS OF WOOL (UNWASHED).¹

Countries of destination.	1913	1914	1915	1916	1917
	<i>Met. tons.</i>	<i>Met. tons.</i>	<i>Met. tons.</i>	<i>Met. tons.</i>	<i>Met. tons.</i>
United States.....	8,854	17,100	51,611	71,803	88,910
France.....	36,864	23,794	17,964	11,263	12,762
United Kingdom.....	18,428	26,894	16,400	12,896	9,077
Italy.....	2,942	6,835	19,734	10,653	8,775
Japan.....					2,385
Netherlands.....	1,002	1,447	4,552	2,441	1,239
Switzerland.....				225	1,315
Spain.....	62	2	3,054	2,169	1,585
Sweden.....		239	2,041	4,816	218
Norway.....		393	1,268	511	10
Denmark.....		68	127	438	79
Germany.....	39,713	30,386			
Austria-Hungary.....	1,825	1,254			
Belgium.....	10,092	8,788			
Portugal.....			3	18	
Brazil.....			270	44	
Canada.....				11	
Paraguay.....		1			
Chile.....	1				
Uruguay.....	296				
To "order".....		69	646	369	1,078
Total.....	120,079	117,270	117,670	117,657	127,433

¹ Source: El Comercio Exterior Argentino.

HIDES AND TANNING.

The salted and dry skins and hides of the ox, cow, sheep, and horse are sold abroad. The exports vary from year to year, according to the number of animals slaughtered, cargo space, etc. No marked tendency is revealed during the last four years. During the year 1918 Argentina's best customers for these products were Great Britain, the United States, and Italy.

The raw materials—hides and quebracho—being native products of Argentina, should cause the tanning industry to occupy a place of far greater importance than it does. The tanning extract, known under the name of quebracho extract, is prepared chiefly from the logs of the red quebracho tree (*Quebracho colorado*) and, to a smaller extent, from the so-called iron tree (urunday), whose bark is said to be particularly rich in tannin. The quebracho wood yields 23 to 24 per cent, by weight, of extract. The capital invested in the quebracho-extract industry is estimated at \$40,000,000 or more. The average exports per year of this tanning material is 71,282 tons; the local tanneries consume a small part of the production. The fact that quebracho is probably the richest of all woods in tannin accounts for the development in northern Argentina of a dozen or more extract factories and for the attention paid to the forests of Argentina and Paraguay by similar foreign industries.

This subject is emphasized in the following chapter, which deals with forest products.

IV. FOREST PRODUCTS.

ARGENTINA AN IMPORTER OF LUMBER.

Argentina is the heaviest lumber importer and the largest consumer in the southern continent, handling three times the quantity imported by Brazil and over eight times that imported by Uruguay. During the last 10 years 86 per cent of all the lumber imported into Argentina and Uruguay has been the production of the forests of North America, and nearly 96 per cent of these imports is credited to the United States and Canada. Notwithstanding the importation is ten times the quantity of lumber produced, the forests, next to the agricultural products, constitute the country's most valuable natural resource. The forest products of Argentina, however, meet only about 11 per cent of the demand at home and are included among Argentina's staple articles of commerce. In 1914 the value of the exports amounted to \$9,000,000; in 1917 to \$17,124,147; and during the first six months of 1918 to \$5,141,765. They were sent to Europe, North America, Africa, and Japan.

The shortage caused by the destruction of timber lands in Europe during the war, and in America by commerce, caused unusual attention to be given to the great timber-producing area of Argentina, which forms 20 per cent of the whole area. Remote from the great trunk lines there are about 150,000 square miles of wooded wilderness.

LOCATION OF TIMBER.

Argentina's forests are exploited mainly in the northern States, near the Bolivian, Paraguayan, and Brazilian boundaries. The largest forest region is spoken of as the Gran Chaco, which covers the national Territories of the Chaco and Formosa and large portions of the Provinces of Santiago del Estero, Santa Fe, Tucuman, and Cordoba, an area of 250,000 square miles. It contains numerous varieties of hard woods, only a few of which have so far proved merchantable. To remove the desirable kinds involves difficult and costly logging problems, which, together with the high transportation rates, are the principal factors contributing to the high selling price of domestic woods. This region produces the quebracho, valuable for its tanning extract, its medicinal bark, and its indestructible wood; the algarrobo, which can be used, untreated, to pave streets; the ñandubay, which makes the durable fence posts required for ranches; the lapacho, used for indestructible railroad ties and dock timber; the petereby, which furnishes excellent masts; the laurel blanco, a cabinet wood; and the Spanish cedar, a soft wood with many uses.

Besides the Chaco, Argentina has a considerable forested area in western Patagonia along the Chilean frontier. These Cordilleran forests of soft woods and Temperate Zone hard woods form a strip varying from 5 to 10 miles in width and extending nearly 1,300 miles. Beech (*Fagus*) in several varieties predominates and is locally known as roble (oak). Cedar and larch occur in patches, the latter resembling the California redwood in appearance and texture. A few

small sawmills, which satisfy the local demand of sparsely settled rural communities, are the only evidences of exploitation in these forests, although they offer birch, cedar, larch, Chilean pine, oak, beech, Winter's bark, laurel, and calden. The pine yields paper stock equal to any imported. The lack of transportation facilities has checked the development of the hardwoods and softwoods of the Tropical and Temperate Zones.



MAP 3.—Forest areas.

In the Mesopotamia region, which lies between the rivers Parana and Uruguay and includes the Provinces of Entre Rios and Corrientes and the Territory of Misiones, the growth is similar to that of the Chaco. In this region useful trees and plants from every part of the world have been introduced, some of which are the apple, peach, apricot, pear, fig, orange, lemon, eucalyptus, and paradise trees.

The pampas, which cover an area of 300,000 square miles, and include the territory which lies between the Parana River and the Atlantic on the east, the mountainous regions on the west, the River Salado on the north, and the Colorado on the south, are only partially wooded; large areas of plains are intermingled with scrubby forests of algarroba, quebracho blanco, tala, and acacia. However, the forests of Tucuman have a dense growth and contain walnut, cedar, laurel, tipa, and *Quebracho colorado* trees.

IMPORTS OF LUMBER.

Argentina has depended in the past upon imported lumber, and importation has been the foremost branch of lumbering in the Plate. In 1917 it imported 37,391,000 board feet of southern yellow pine, 2,024,000 board feet of northern white pine, 202,000 board feet of spruce, and 4,535,000 board feet of oak from the United States, and 11,089,937 board feet of hard woods from other South American countries. Normally about 89 per cent of Argentina's lumber has been imported, about 500 ships being required annually to carry the imports.

The following table shows Argentina's imports of all woods and woody substances, 1913-1918. The second table indicates the imports of wood pulp for news-print paper.

TOTAL IMPORTS OF WOOD, WOODY SUBSTANCES, AND WOOD MANUFACTURES, 1913 TO JUNE, 1918, BY COUNTRIES OF ORIGIN.¹

[Values in United States currency.]

Countries of origin.	1913	1914	1915	1916	1917	1918, Jan.-June.
Africa.....	\$1,382	\$477				
Germany.....	268,014	263,825	\$50,945			
Australia.....		6,527	48			
Austria-Hungary.....	79,916	54,456	1,726			
Belgium.....	27,556	25,850	1,330			
Brazil.....	57,588	45,910	64,406			
Canada.....		5,138				
Cuba.....	1,478		778			
Chile.....	53	1,268	165			
China.....	233	1,770	136			
Denmark.....	12,019					
Spain.....	311,935	72,147	90,121			
Egypt.....		1,783				
United States.....	1,253,450	875,949	848,425			
France.....	190,077	74,751	32,190			
Italy.....	81,091	45,926	42,169			
Japan.....	21,355	2,054	6,294			
Mexico.....	5,664	5,898	3,477			
Norway.....	253,394	96,288	58,983			
Netherlands.....	39,589	6,829	17,527			
Paraguay.....	815,898	453,574	451,455			
Portugal.....	113,243	75,531	21,541			
French possessions.....	111	1,546				
British possessions.....	927	784	544			
United Kingdom.....	52,961	54,816	59,271			
Russia.....	1,771	16,418				
Sweden.....	512,267	315,061	286,543			
Switzerland.....	1,169	5,525	3,649			
Turkey.....	1	1,625				
Uruguay.....	618	1,798	9,068			
Total.....	4,103,760	2,513,524	2,050,791	\$6,728,712	\$4,368,030	\$3,222,203

¹ Source: El Comercio Exterior Argentino.

NOTE.—Imports are not listed by countries after 1915.

IMPORTS OF WOOD PULP FOR NEWS-PRINT PAPER, 1913 TO JUNE, 1918.¹

[Quantities in tons; values in United States currency.]

Countries of origin.	1913		1914		1915	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Germany.....	3,760	\$108,838	6,337	\$183,451	1,129	\$32,676
Austria-Hungary.....	120	3,474	541	15,664	.....	.....
Belgium.....	51	1,471	.....	.....	.....	.....
Denmark.....	413	11,961	.....	.....	.....	.....
United States.....	891	25,806	1,195	34,602	1,514	43,823
France.....	.....	.....	305	8,815	.....	.....
Italy.....	.....	.....	.....	.....	.....	.....
Norway.....	8,753	253,394	3,326	96,288	2,037	58,983
Netherlands.....	384	11,117	180	5,211	279	8,091
United Kingdom.....	.....	.....	.....	.....	.....	.....
Sweden.....	17,621	510,127	10,883	315,061	9,878	285,970
Russia.....	.....	.....	567	16,418	.....	.....
Brazil.....	.....	.....	.....	.....	440	12,723
Total.....	31,993	926,188	23,334	675,510	15,277	442,266

¹ Source: El Comercio Exterior Argentino.

NOTE.—Imports are not listed by countries after 1915. The total quantities and values were: 1916, 22,285 tons, valued at \$645,137; 1917, 13,445 tons, \$389,167; 1918 (Jan.-June), 5,261 tons, \$152,318.

Much interest has been shown in recent years in Argentina's forest conservation and development. If transportation can be provided and the forests properly exploited, the large imports of lumber will be greatly diminished.

The United States is the chief purveyor of lumber for Argentina, with Canada second. All of the yellow pine and a large portion of the white pine, spruce, and oak, which form the principal lumber imports into Argentina, originate in the United States. Much of the Canadian lumber is shipped through Boston, Portland, or other New England ports. The following tables show imports from the United States:

UNITED STATES EXPORTS OF WOOD TO ARGENTINA, FISCAL YEARS 1913-1918.¹

Articles.	1913		1914		1915	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Wood:						
Logs and round timber—						
Hardwood.....M feet.....	.....	.....	670	\$18,055	.....	.....
Timber—						
Sawed—						
Pitch pine (long-leaf).....do....	3,528	\$78,895	1,609	34,376	513	\$7,168
Railroad ties.....number.....	2,048	1,493	.....	.....	.....	.....
Lumber—						
Boards, planks, and scantlings—						
Cypress.....M feet.....	8	436	.....	.....	9	.....
Fir.....do.....	3,639	54,988	6,808	81,620	.....	.....
Gum.....do.....	22	1,198	.....	.....	.....	.....
Oak.....do.....	4,994	302,827	3,652	225,540	1,781	100,521
Pine—						
White.....do.....	12,122	564,149	8,416	443,659	1,082	56,953
Pitch (long-leaf).....do....	209,409	4,133,397	172,906	3,316,151	61,800	1,037,636
Short-leaf.....do.....	27	1,451	39	9,695	4	141
All other.....do.....	2,821	52,386	1,158	22,291	.....	.....
Poplar.....do.....	297	25,571	215	18,026	11	592
Spruce.....do.....	13,712	458,556	12,224	413,339	1,920	56,820
All other boards, planks, etc.—						
Hardwood.....M feet.....	1,312	100,911	1,778	97,347	147	10,129
All other lumber.....	.....	6,812	.....	126,531	.....	45,717
Shooks—						
Box.....	.....	38,977	.....	44,575	.....	29,620
All other.....number.....	983,439	2,321,689	434,532	974,777	277,591	529,340
Staves.....do.....	54,180	3,863	181,917	24,614	856,068	61,174
Heading.....	.....	2,500	.....	4,875	.....	3,124
Total values.....	.....	8,150,099	.....	5,855,471	.....	1,939,534

¹ Source: Records of the Bureau of Foreign and Domestic Commerce, United States Department of Commerce.

UNITED STATES EXPORTS OF WOOD TO ARGENTINA, FISCAL YEAR 1913-1918—CON.

Articles.	1916		1917		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Wood:						
Logs and round timber—						
Hardwood.....M feet..	11	\$745	94	\$3,938		
Timber—						
Sawed—						
Pitch pine (long-leaf)..do....	982	17,494	203	4,762	170	\$5,051
All other—						
Hardwood.....do.....	12	366				
Railroad ties.....number.....					28,803	19,010
Lumber—						
Boards, planks, and scantlings—						
Gum.....M feet.....					17	768
Oak.....do.....	3,547	217,661	4,535	294,338	3,444	239,097
Pine—						
White.....do.....	3,416	158,061	2,024	92,936	1,596	44,731
Pitch (long-leaf).....do....	74,975	1,198,877	37,329	633,150	33,317	851,857
Short-leaf.....do.....	200	15,925				
All other.....do.....	77	3,988	62	4,955	1	48
Poplar.....do.....	44	2,873	92	6,593	2	130
Spruce.....do.....	3,868	123,258	202	6,405	192	11,119
All other boards, planks, etc.—						
Hardwood.....do.....					171	16,821
Softwood.....do.....	768	45,929	319	22,316	24	1,807
All other lumber.....do.....		356,432		176,394		2,314
Shooks—						
Box.....do.....		82,701		34,230		55,249
Cooperage.....number.....					437,861	1,174,652
All other.....do.....	127,135	507,507	325,831	650,466	204,438	270,440
Staves.....do.....	381,066	36,788	501,656	19,050	27,000	6,106
Heading.....do.....		115,123		19,292		42,491
Total values.....do.....		2,883,728		1,068,825		2,741,691

TOTAL EXPORTS OF WOOD, WOODY SUBSTANCES, AND WOOD MANUFACTURES, 1913 TO JUNE, 1918, BY COUNTRIES OF DESTINATION.¹

[Real values in United States currency.]

Countries.	1913	1914	1915	1916	1917	1918, Jan-June.
Germany.....	\$614,729	\$383,461				
Austria-Hungary.....	392,882	219,750				
Belgium.....	406,764	162,359				
Bolivia.....	335	207	\$249			
Brazil.....	6,284	3,481	9,611			
Chile.....	53	2,193	45,084			
Spain.....	24,044	13,399	251,929			
United States.....	1,829,209	953,013	2,606,201			
France.....	218,744	81,727	1,169,099			
Italy.....	532,668	384,299	1,596,165			
Japan.....	16,926					
Norway.....	19,020	10,987	271,516			
Netherlands.....	85,190		177,063			
Paraguay.....	4,808	3,812	106,628			
Peru.....	1,500					
Portuguese possessions.....	213,005	94,180				
United Kingdom.....	4,895,565	6,086,667	10,728,354			
Russia.....	299,922	67,132				
Sweden.....	37,476	133,602	674,464			
Uruguay.....	647,321	315,118	572,818			
Denmark.....			128,216			
Portugal.....			8,902			
Total.....	10,246,355	8,915,387	18,346,299	\$21,666,257	\$17,124,147	\$5,141,765

¹ Source: El Comercio Exterior Argentino.

NOTE.—Exports not listed by countries after 1915.

CONSTRUCTION.

For every use to which an imported North American or European wood can be put, a native wood, or one easily imported from neighboring South American countries, can be substituted. For general construction work Parana pine, floated down from southern Brazil, is the equal of any imported soft wood; for ceiling and partition work Spanish cedar can replace North American spruce; for flooring Spanish cedar and Parana pine can be substituted for southern yellow pine. Argentine hard woods are now being used for molding and interior trim. For indestructible railroad ties quebracho and lapacho have no foreign competitor, unless it may be the Australian jarrah. A Federal statute now requires railroad ties to be made of native woods. Quebracho is unexcelled for telegraph poles, and lapacho, curupay, and virapita for piling and dock timber. Gates and fencing are being made of quebracho, urunday, curupay, and virapita.

Domestic timber is used chiefly for railroad ties and telegraph and fence posts, and in the reconstruction of a stretch of dock known as D3, which is to cost \$772,000, the native hardwood and pine will be used. Much of the Argentine timber will be used in the proposed grain elevators at Buenos Aires, the freezing plants of the Rosario district, the municipal slaughterhouse of Rosario, and the bridge over the Parana River, between Ibicuy and Baradero, at a cost of \$38,632,000.

QUEBRACHO.

Formerly Argentina was engaged only in cutting and exporting quebracho logs, but since the establishment of several native factories for extracting tannic acid the export of the raw material has decreased, while the export of the extract has increased proportionately. However, large quantities of logs are still sent abroad for the extraction of the tannin. The principal port of shipment is Santa Fe. The exports of quebracho logs from Argentina averaged 382,406 tons, valued at \$4,984,053, during the five years from 1909 to 1913, and amounted to 422,360 tons, valued at \$4,788,815, in 1913. The following table shows by countries and in tons the exports of quebracho logs from Argentina for 1916, 1917, and six months of 1918:

Countries of destination.	1916	1917	1918 (6 months).
	Tons.	Tons.	Tons.
Brazil.....		2	
United States.....	60,519	89,224	3,627
France.....	16,503	16,417	
Italy.....	17,669	5,353	2,557
Norway.....	1,371	572	
Paraguay.....	44,061	3,683	
United Kingdom.....	14,216	9,959	
Sweden.....	2,780	743	
Uruguay.....	3,087	7,215	3,095
Subject to order.....	1,528		
Total.....	161,734	133,176	7,245

Source: El Comercio Exterior Argentino, Boletines 176 and 178.

The exportation of the logs in 1917 to the United States to be used for the manufacture of extract was 89,224 tons, which is equivalent to 25,000 to 30,000 tons of extract. If the extract were manu-

factured in Argentina or Paraguay and the importation of quebracho logs into the United States prohibited, it would save the transportation of about 65,000 tons of logs per annum. The logs weigh 78 pounds to the cubic foot. While the liquid quebracho extract could be produced in the Argentine factories, containers are not available for its transportation to the United States.

On account of the durability of quebracho wood it is widely used in Argentina for railroad sleepers and fence posts, having a life of 40 years or more. So hard is the wood that the Spanish name, meaning "ax breaker," is applied to it. The wood and extract constitute the wealth of the northern regions of Argentina, and the supply is extensive. The annual cut of quebracho is much less than the sum total of the annual growth. The total available supply is estimated at 168,000,000 tons; less than 1,000,000 tons are cut annually at present.

QUEBRACHO EXTRACT.

In 1889 the reduction of the quebracho wood to chips and sawdust and the extraction of the tannin, which is used mainly for tanning leather, began on a commercial basis in Argentina. Since then the manufacture of quebracho extract has developed to a position of second importance among the manufacturing interests of Argentina. Half a ton of quebracho yields extract equivalent to the extract of 2 tons of oak bark. The chipping and slivering are performed by large rotary disk cutters, which prepare the wood for the boiling vats. After boiling for two and one-half to three hours the solution is carried into vacuum pans. From the pans the extract is withdrawn into wooden boxes, and when cooling it forms into cakes the shape of the box. The jute bags which are used for the export of the extract are just large enough to hold one of these cakes, weighing 125 pounds. The machinery used in this industry is nearly all of German origin, though England has furnished some.

The potential production of quebracho extract by the 18 companies operating in Argentina (and Paraguay) is about 230,000 metric tons per annum. In 1917, out of an actual production of 117,007 tons, the exportation amounted to 90,777 tons. About 80 per cent of the extract produced by these countries is handled by the Forestal Land, Timber & Railway Co., which is now entirely controlled by the British, German interests having been suppressed or controlled. This company owns nearly 5,000,000 acres of forest land, operates over 200 miles of railroad, maintains many barges and tugs, and has nearly 15,000 employees on the pay roll. With its capital of \$14,475,000, it is the largest producer of quebracho extract in the country and purchases the output of several smaller concerns, thus controlling the output and, to a large extent, the prices. Besides its own annual output of 90,000 tons, known as the "Corona" brand, the company purchases probably 25,000 tons yearly. It purchased the Argentine Quebracho Co. and the New York Canning Extract Co. and operates factories at Villa Guillermina, Villa Ana, Tartagal, Gallareta, and Santa Felicia. In 1917 the Forestal Land, Timber & Railway Co. raised the price of quebracho extract to \$190 per ton; but early in 1918 the smaller companies refused to permit this concern to control their output; so the price, through competition, fell to \$90 per ton. The lack of shipping in 1918 caused a decline in exports and lowered the price.

The export of the extract in 1908 was 48,162 tons, the principal customers being Germany and the United States. From 1909 to 1913 the exports averaged 72,985 tons, valued at \$4,506,734, and amounted to 87,662 tons, valued at \$4,775,698, in 1913. In 1917 the Republic exported 90,777 tons. The United States purchases annually more than 40 per cent of the extract.

The quebracho industry derived immediate benefit from the war. In 1913 the United States was the leading customer for quebracho extract and took 28,402 metric tons, which was 39 per cent of the total amount exported. The demand for leather in the belligerent countries created a corresponding demand for the extract. Out of the total exports of 80,153 tons in 1914 and 100,213 tons in 1915 the United Kingdom took 50,798 and 66,244 tons, respectively. The United States followed with 13,144 tons in 1914 and 12,307 tons in 1915. During the first six months of 1918 the United States imported from Argentina 16,644 tons of extract, which was 42 per cent of the total amount exported from Argentina in that year.

The following table shows Argentina's exports of quebracho extract during the war:

EXPORTS OF QUEBRACHO EXTRACT, 1913 TO JUNE, 1918.¹

[Quantities in tons; real values in United States currency.]

Countries of destination.	1913		1914		1915	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Germany.....	5,705	\$344,142	4,054	\$244,490		
Austria-Hungary.....	6,519	392,873	3,643	219,750		
Belgium.....	6,241	375,884	1,907	115,046		
Brazil.....					32	\$6,123
Spain.....	394	23,736	213	13,062	1,266	212,511
United States.....	28,402	1,710,018	13,144	825,217	12,307	2,089,462
France.....	3,563	214,549	1,132	68,258	4,224	664,859
Italy.....	3,222	198,834	1,919	123,226	7,281	1,220,561
Japan.....	283	16,926				
Netherlands.....	520	31,221			895	177,063
Peru.....	25	1,500				
United Kingdom.....	13,192	794,945	13,696	863,909	66,244	9,842,590
United Kingdom (p. o.).....	9,192	554,856	37,102	2,324,203		
Russia.....	580	34,807	10	603		
Sweden.....	567	34,274	2,000	128,758	5,914	647,033
Turkey.....						
Uruguay.....	1,279	77,010	1,130	66,083	573	98,822
Chile.....			30	1,809	230	44,801
Norway.....			173	10,987	1,502	219,950
Denmark.....					600	90,127
Portugal.....					45	8,902
Boliva.....						
South Africa.....						
Switzerland.....						
Total.....	79,684	4,800,575	80,153	5,005,401	100,213	15,317,804

¹ Source: El Comercio Exterior Argentino.² Value converted to United States currency on the basis of \$0.965 throughout.

EXPORTS OF QUEBRACHO EXTRACT, 1913 TO JUNE, 1918—Continued.

Countries of destination.	1916		1917		1918, Jan.-June.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Germany.....						
Austria-Hungary.....						
Belgium.....						
Brazil.....	126		209		295	
Spain.....	694		1,573		136	
United States.....	24,693		30,527		16,644	
France.....	3,572		9,620		7,069	
Italy.....	11,282		12,926		5,913	
Japan.....			249		862	
Netherlands.....	449					
Peru.....						
United Kingdom.....	34,096		21,280		8,764	
United Kingdom (p. o.).....						
Russia.....	18,762					
Sweden.....	3,777		250			
Turkey.....						
Uruguay.....	516		10,218		469	
Chile.....	155		408		249	
Norway.....	1,738		1,923			
Denmark.....	2,016		849			
Portugal.....	697		450			
Bolivia.....	1					
South Africa.....			43		72	
Switzerland.....			252			
Total.....	97,574	\$18,974,890	90,777	\$13,645,303	40,503	\$4,254,702

FIREWOOD.

Most of the material for firewood grows in the northern undeveloped regions of the Provinces served by the narrow-gauge State railways. Woods have always been used extensively as fuel in homes, and during the war have been used on railways. However, the number of fires in the wheat fields caused by wood sparks prove the unsuitability of wood to the railways save as makeshift fuel.

In 1917 the narrow-gauge State railroads had a monthly carrying capacity of 600,000 tons of wood. At the ratio of 3 tons of wood to 1 ton of coal, this supply furnishes the equivalent of 200,000 tons of coal a month, or 2,400,000 tons a year, a satisfying result if it were an ideal fuel. In the Province of Santa Fe one railway transports 150,000 tons of wood per month; the Province of Santiago del Estero can not obtain transportation for its accumulated stock of wood.

Firewood was exported from Argentina in large quantities in 1917. In that year 172,538 tons left the Republic, with a value of \$1,121,306, the figures for 1916 being 12,613 tons and \$112,465.

The scarcity of wood in 1918 was due to the congestion of traffic on the State-owned railways, and this was caused largely by the irregularities practiced by the managers of these railways in leasing cars to certain firms to the prejudice of the general public. However, the exports of firewood in the first six months of 1918 amounted to 109,506 tons, valued at \$683,544.

At the beginning of 1917 wood fuel sold at \$9.76 per ton, the early part of 1918 at \$17 to \$18.70, and the latter part of 1918 at \$21.23 to \$33.97.

CONCLUSION.

Why is Argentina not independent of the world for her lumber supply? The lack of railroads, the lack of sufficiently large rivers in the wooded sections, and the bad condition of the roads have retarded this industry. The methods of lumbering are crude, costly, and wasteful. As much as 60 per cent of the timber felled is wasted.

V. MINERALS.

DEVELOPMENT OF MINING INDUSTRY.

Argentina has always concentrated its efforts upon agriculture and cattle raising and has paid little attention to other industries. The lack of transport, the scarcity of labor, and the absence of natural motive forces, together with the more favorable economic position of agricultural and animal industries, have tended to retard the development of new industries in mineral and other products. The mineral resources of Argentina must therefore be considered as sources open to future development, rather than actual large contributors to wealth at the present time.

There are mineral-bearing regions over the whole eastern slope of the Andes, extending from Bolivia to Tierra del Fuego.

The Argentine Government during the past four years has stimulated interest in mining, especially gold, silver, and copper. An aerial railway, one of the greatest pieces of engineering in the world, was built by the Government to exploit the rich mines of Famatima, situated in the Province of La Rioja.

The Government has introduced very liberal laws concerning mines. The State, instead of exploiting the mines itself, grants concessions to individuals who prove themselves capable of administering their own property. To acquire a claim, a written demand is presented, describing exactly the location and the nature of the property demanded, giving a detailed account of its discovery and any other useful information, together with a sample of the mineral. The claimant has full ownership of his mine after the Government has decided upon the right of priority and has made a survey of the property.

The mine and its products are untaxed, whether sold at home or abroad. An obligation upon the mine operator is that he work his claim with at least 4 laborers during 230 days of the year. If this condition be not fulfilled, another person may demand the concession of the abandoned mine.

The result of this action of the Government is that several important limited mining companies have been formed which have obtained good results and various railway systems have been extended to the mining districts.

Petroleum and wolfram are considered by Mr. W. H. Robertson, United States consul general at Buenos Aires, as the most important of the mining products of Argentina. The demand for mica was stimulated in 1917, resulting in further development of this resource.

PETROLEUM.

Although the national deposits of petroleum in the Argentine Provinces are little exploited, the Board of Mines and Geology has determined the region in which this mineral product is located. On account of the value of petroleum as a substitute for coal, its development will tend to make Argentina more independent of imported fuels.

At present, however, heavy imports of petroleum products are assured. The imports of petroleum and its products increased from 191,378 tons in 1913 to 300,027 tons in 1917. Argentina has also received heavy imports of kerosene, the United States furnishing practically the total imports.

One of the four petroleum districts is in the Province of Mendoza, at the base of the Cordillera Range; a second district is located in the tar and asphalt zone of Mendoza and Neuquen; a third is along the Patagonian coast, near Comodoro Rivadavia; and a fourth is the Salta-Jujuy field. The fields of Mendoza were the first to be exploited and were surveyed in 1886.

The zone of Comodoro Rivadavia, situated on the coast about 850 miles south of Buenos Aires, contains the greater part of the petroleum wealth of the Republic. In spite of the fact that it is the most accessible and the only region exploited to any considerable extent and was discovered years ago, little headway in scientific knowledge and productive efficiency has been made. There are 18 wells being exploited, producing, respectively, from 35 to 2,859 cubic meters of oil per month. One of the wells gives 180 tons daily, which can be sold approximately \$60 per ton, with a profit of \$41.

The Comodoro Rivadavia wells are controlled and operated by the Government for the purpose of using the oil extensively for the navy. It is not probable that Government control will be released. There are several private companies exploiting the oil fields which are outside the Comodoro Rivadavia district, but their output is very small.

The oil of the Government wells is heavy and has an asphalt base. On distillation it yields 1.5 to 3.5 per cent of naphtha and gasoline, 15 to 19 per cent of illuminating oils, and 77 to 85 per cent of lubricants, fuel, and coke. It is most useful as a fuel to be used as a substitute for coal.

The oil of the other three fields is lighter than that of Comodoro Rivadavia; it has a paraffin instead of an asphalt base. Samples from these districts give 5 per cent of light oil, 30 per cent of kerosene, and 52 per cent of lubricating oil.

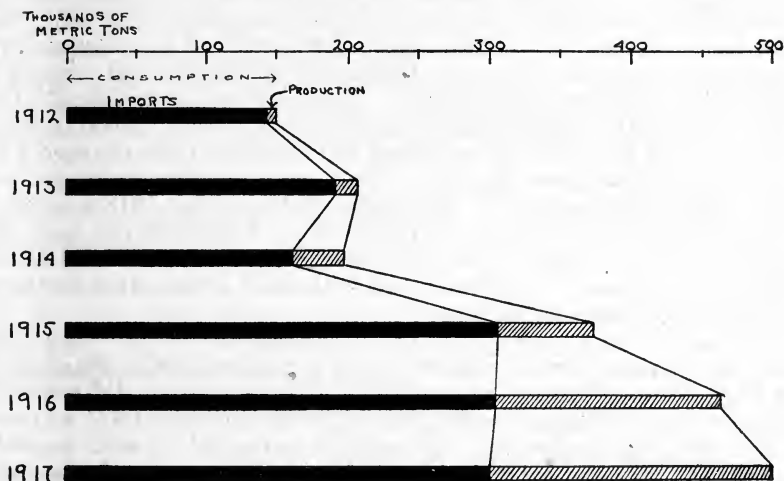
Although the policy of the Government with regard to increasing the output of petroleum is one of conservation as well as exploitation, and the Government is guarding against the policy of working the fields to such an extent that a considerable exportation would result, yet the increase of production has been large. The amount of oil produced was 101 United States barrels in 1907, 1,147,000 barrels in 1917,¹ and 299,660 barrels from January to March, 1918. The Government has authorized the issue of bonds to the value of \$6,500,000, to be used in increased exploitation of these fields. The increased output, however, assisted only partly in restoring fuel conditions to normal. Present indications are that, unless more profitable wells are developed, the oil output will not meet domestic needs. Imports of petroleum increased during the war, as shown in the following table and graph No. 10.

¹ Less than 0.2 per cent of world production in that year.

PRODUCTION AND CONSUMPTION OF PETROLEUM IN ARGENTINA, 1912-1917.

Years.	Imports.	Per cent.	Production.	Per cent.	Consumption.	Per cent.
	<i>Metric tons.</i>		<i>Metric tons.</i>		<i>Metric tons.</i>	
1912.....	143,817	100	6,268	100	150,085	100
1913.....	191,378	.....	17,416	.....	208,794	.....
1914.....	161,462	.....	36,733	.....	198,195	.....
1915.....	306,955	.....	68,876	.....	375,831	.....
1916.....	304,115	.....	160,000	.....	464,115	.....
1917.....	300,027	208	200,000	3,190	500,027	333

GRAPH No. 10

IMPORTS, PRODUCTION & CONSUMPTION
OF PETROLEUM
IN ARGENTINA - 1912-1917.

Consumption of petroleum increased during the war from 208,794 metric tons in 1913 to 500,027 metric tons in 1917. At the same time the imports of coal were cut down from 4,046,278 metric tons in 1913 to 707,712 metric tons in 1917. The lack of shipping to bring coal from England or the United States resulted in an acute fuel shortage in Argentina during the war. Firewood was more used, as has been pointed out, and corn was also commonly used as a fuel in homes. The increased production and imports of petroleum doubtless helped the condition, but they did not completely solve the acute fuel situation which was forced upon Argentina by the war. The increased production and imports of petroleum did not meet the demand sufficiently to keep down the price. The table following indicates that a considerably larger supply of petroleum could have been disposed of in Argentina had it been available during the war.

PRICES OF PETROLEUM IN ARGENTINA.¹

[United States currency.]

	Per ton.
Shortly after declaration of war.....	\$10.62
March, 1916.....	{ 17.00
April, 1916.....	{ 21.23
February, 1917.....	25.48
October, 1917.....	29.72
December, 1917.....	36.09
February, 1918.....	40.34
May, 1918.....	46.70
July, 1918.....	50.95
	² 55.20

According to a statement made in the Standard Daily Trade Service, Volume IV, item 1025, the cost to the Government from April to July, 1918, of oil per cubic meter placed in Buenos Aires was \$8.94. This amount included the cost of a cubic meter at the well, \$5.10; the embarkation cost at Comodoro Rivadavia, \$0.40; transportation from Comodoro Rivadavia to Buenos Aires, \$3.22; and storage and handling at Buenos Aires, \$0.22. The cubic meter yields 925 liters; so it is calculated that the cost per ton of petroleum placed in Buenos Aires was \$9.65. The Government in February, 1918, charged \$46.70 per ton and produced the oil at \$9.65 per ton, thus making a profit of \$37.05, or 260 per cent. The estimated yield for 1918 was 200,000 tons, which was salable at a profit of at least \$37 per ton. This income of \$7,400,000 (United States currency) can be used to meet the extra wartime expenditure and will cause a reduction in the rate of taxation within Argentina.

The importers of petroleum have made large profits. The cost to the Anglo-American Petroleum Co. of crude petroleum which it sold in Argentina, including transport and other expenses, did not exceed \$19 per ton. Selling it at \$60 per ton, a clear profit of \$41 was made. The Government expects to increase the output of its wells to such an extent that the importation of petroleum will no longer be necessary.

COAL.

The coal and iron deposits of Argentina are distributed over a region of thousands of miles. They are in the ranges of the Cordillera, 4,000 to 5,000 feet above sea level, over 900 miles from the coast and far from roads or waterways. The natural motive force of that district is of no assistance to miners, there being only a few waterfalls in Cordoba and Tucuman. Coal mining is being developed, especially in the Province of Mendoza, and it appears that although the output is still small, Argentina will be able in the near future to supply its own needs and also those of the neighboring States.³

According to a report of Consul General Robertson, made in July, 1917, valuable coal deposits have been discovered near Lake Epupen, in the Territory of Chubut, within 124 miles of the railway at San Antonio. The deposits, which are near the surface, are extensive, of considerable thickness, and of high quality. In order to develop these deposits, transportation by means of trucks from San Antonio

¹ Sources: Report of Consul General Robertson, Oct. 24, 1918; Review of the River Plate, Aug. 9, 1918; Daily Review of the Foreign Press, Nov. 27, 1918.

² \$55.20 per ton in bulk; \$56.05 per ton in barrels belonging to the buyer; \$57.32 per ton in barrels belonging to the Government.

³ Pitman's Encyclopædia, Vol. I, p. 100.

to Maquichão will be established. A decree, dated May 15, 1917, was issued giving the management of the local Government railroads the power to invest \$16,800 for the purchase of native coal to be taken from the Epupen coal-mining properties.

Señor Enrique M. Hermitte, Director of Mines and Geology of the Ministry of Agriculture, stated that early in 1917 coal mines were found in the Province of Santa Cruz. The samples of this Santa Cruz coal indicate contents of volatile matter, fixed coal, and ash that will bear comparison with the best European fuel. Owing to the failure of the Government to appropriate funds, the economic aspects of the Patagonian coal deposits have not been studied.

Before the war the manufacturing plants, the tramway and lighting plants of the large Argentine cities, and especially the extensive railway system depended upon imported coal for their maintenance. More than 95 per cent was furnished by Great Britain, because its ships departing to obtain the grains could well afford to offer low rates on the coal rather than leave in ballast.

The following table shows the decreased imports of coal, and, since the domestic output is very small, the table indicates the reduction in consumption forced upon Argentina by the war:

IMPORTS OF COAL, 1912-1918.

Countries of origin.	1912	1913	1914	1915	1916	1917	1918 (3 months.)
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Germany.....	56,450	9,713	4,766	.....	.....	.....	.....
Belgium.....	4,759	2,185	.....	.....	.....	.....	.....
United States.....	115,901	56,206	169,786	1 651,747	1 921,969	1 327,133	1 59,811
United Kingdom.....	3,499,989	3,977,650	3,242,519	.....	.....	.....	.....
Other countries.....	30,857	524	4,455	.....	.....	.....	.....
Total.....	3,707,956	4,046,278	3,421,526	2,543,887	1,884,781	707,712	138,171

1 Figures from United States reports. If these figures are subtracted from the totals, the remainders are within a few thousand tons of the imports from the United Kingdom.

At the beginning of 1917 the coal situation was serious; the prices were quoted at about \$31 per metric ton of 2,204 pounds, and they rose by the middle of June, 1918, to \$50. This produced a serious state of affairs for the railroad industries and the other domestic needs. Unjust speculation has gone on in other fuels, i. e., charcoal, firewood, and petroleum. Shortly after the end of 1917 charcoal sold for \$50.95 per ton, rising later to \$55.20. At the beginning of 1917 firewood was listed at \$9.76 per ton, and in the latter part of 1918 the price jumped to \$33.97. Petroleum, shortly after the war began, brought \$10.62 per ton, while in July, 1918, it had risen to \$55.20, sold in bulk, and \$57.32, sold in barrels.

Radical changes must have taken place within the Republic in order to adjust conditions to the decreased fuel supply. Since the undeveloped coal mines are removed from means of transportation, strenuous efforts were made to develop the oil fields and facilitate the lumbering of the northern forests. But the shortage was so enormous that the Allies feared that food supplies could not be moved to the coast cities for shipment. The agreement proposed in the autumn of 1918 provided coal allotments to the South American countries. Argentina was to receive 1,000,000 tons from Great

Britian, the greatest purchaser of its products. On the other hand, the United States, who has been sending so many ships for Chilean nitrates and Brazilian rubber and coffee, was assigned to furnish assistance to these countries. With the resumption of normal conditions heavy coal imports will again reach Argentina from Great Britian. As our imports of Argentine meats and wool increase the United States is likely to obtain more and more of this coal trade. The outbound vessels will prefer to carry coal at low rates rather than to go in ballast.

It will therefore probably be a good many years before the coal resources of Argentina will be extensively exploited.

WOLFRAM.

Practically the entire production of Argentine wolfram is exported. In 1917 the exports amounted to 2,175,119 pounds, valued at \$816,623. This represented an increase over 1916 of 498,749 pounds, but a decrease in value, on account of lower prices, of \$198,149. In the first six months of 1918 there were exported 862,987 pounds of wolfram, of a value of \$299,425. All of this wolfram went to the United States or to the other allied countries. The above values are given in terms of United States currency, quoted from a report by Consul General Robertson made in October, 1918.

MICA.

Most of the mica produced in Argentina has been exported to the United States, the amount having increased yearly. In 1916 a quantity of 11,257 pounds, at a value of \$3,746, was exported; it was increased in 1917 to 154,305 pounds, at a value of \$41,007. In the first six months of 1918 shipments of 261,228 pounds were made, at a value of \$71,569.

The exploitation of mica in Argentina does not constitute an established industry, but is made by many private individuals, according to the fluctuations of the market. An increasing interest in the production of this mineral is very noticeable, and it is known that the supply is abundant, especially in the Provinces of Cordoba, San Luis, and San Juan.

The mica shipped to the United States is both clear and spotted, laminated, and beveled. The iron which has been found in composition with the mica would render it prone to explosions if used for electrical purposes.

One of the Buenos Aires exporters, in September, 1917, was prepared to supply for export to the United States sheet mica up to 11,000 pounds per month, placed on the dock alongside vessel. The sheets varied in size from 5 to 47 square inches, with prices per sheet ranging accordingly from \$1.70 to \$8.30 (United States currency) for the clear mica and from \$0.58 to \$5.93 for the spotted. The best quality did not contain iron, and any spotting was due to vegetable action.

The price of mica increased from 25 to 30 per cent, owing to the fact that four or five German houses collected and held the mica in reserve for the purpose of preventing its exportation.

OTHER MINERALS.

Other minerals and mineral products found in Argentina are gold, silver, copper, iron, lead, tin, asphalt, granite, marble, kaolin or China clay, lime, borate of lime, onyx, sulphur, salt, rock crystal, bismuth, borax, antimony, gypsum, and nitrates. These minerals have been exploited to a very small extent, principally because of the lack of transportation facilities, railroad construction having been largely centered in the agricultural districts.

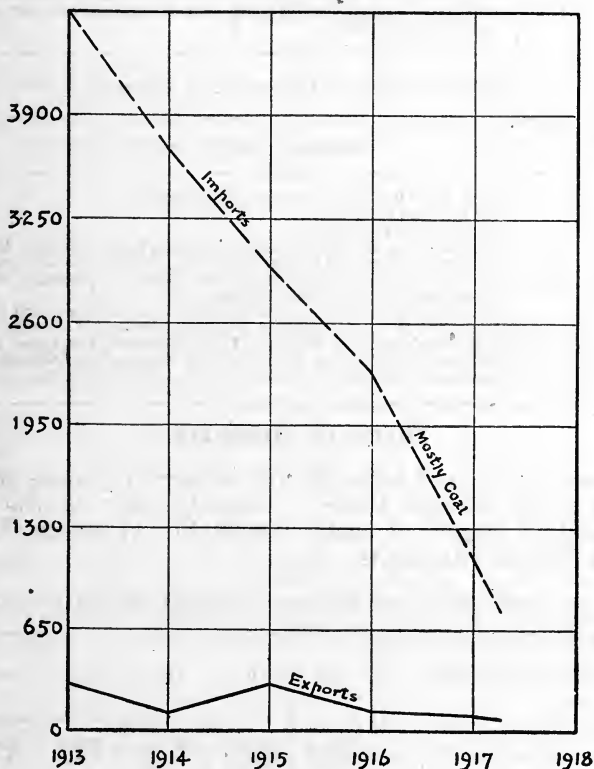
Graph No II.

ARGENTINA.

IMPORTS AND EXPORTS OF MINERALS
AND MINERAL PRODUCTS, 1913 - MARCH 1918.

BY YEARS.

TONS
(000)



The value of gold produced in 1900 was \$75,000, and that of silver \$200,000.

The principal Provinces of Argentina and the minerals found in each are as follows:

MINERALS IN THE TEN PRINCIPAL PROVINCES.

Provinces.	Existent minerals and mineral products.
Catamarca.....	Gold, silver, copper, lead, iron, salt, bismuth, antimony, and mica.
La Rioja.....	Gold, silver, nickel, tin, coal, rock crystal, salt, cobalt, alum, topaz, and marble.
San Juan.....	Gold-bearing quartz, silver, copper, coal, antimony, iron, lead, sulphur, salt, lime, gypsum, black marble, slate, granite, and amianthus.
San Luis.....	Gold, sulphur, salt, lead, copper, iron, antimony, marble, manganese, wolfram, onyx, and lime.
Salta.....	Auriferous quartz, argentiferous galena, silver, copper, salt, lime, coal, lignite, and petroleum.
Cordoba.....	Lime, marble, salt, talc, china clay, gypsum, Iceland spar, fluorspar, mica, beryl, gold, silver, copper, lead, iron, coal, salt, manganese, wolfram, onyx, porphyry, and alabaster.
Tucuman.....	Silver and copper.
Mendoza.....	Copper, silver-bearing galena, gold-bearing quartz, slate, marble, coal, alabaster, antimony, sulphur, asbestos, iron, rock crystal, onyx, salt, asphalt, and petroleum; also mineral springs.
Jujuy.....	Gold, silver, lead, copper, borax, salt, borate of lime, lignite, and petroleum.
Neuquen.....	Gold, silver, copper, iron, lead, coal, marble, lime, salt, sulphur, and petroleum; also mineral springs.

LOCATION OF THE TEN PRINCIPAL MINERALS.

Minerals.	Location according to Province or Territory.
Petroleum.....	Salta, Mendoza, Jujuy, Neuquen, and Chubut.
Wolfram.....	San Luis and Cordoba.
Mica.....	Catamarca and Cordoba.
Gold.....	Catamarca, La Rioja, San Juan, San Luis, Salta, Cordoba, Mendoza, Jujuy, Neuquen, Tierra del Fuego, Santa Cruz, Chubut, and Misiones.
Silver.....	Catamarca, La Rioja, San Juan, Salta, Cordoba, Tucuman, Mendoza, Jujuy, Neuquen, Los Andes, and Misiones.
Coal.....	La Rioja, San Juan, Salta, Cordoba, Mendoza, Neuquen, and Misiones.
Iron.....	Catamarca, San Luis, Cordoba, Mendoza, Neuquen, Los Andes, and Misiones.
Copper.....	Catamarca, San Juan, Mendoza, Jujuy, Neuquen, Los Andes, and Misiones.
Marble.....	La Rioja, San Juan, San Luis, Cordoba, Mendoza, and Neuquen.
Lead.....	Catamarca, San Juan, San Luis, Cordoba, Jujuy, Neuquen, and Misiones.

TRADE IN MINERALS.

Argentina's exports of minerals and mineral products play a very small part in its foreign trade. Imports prior to the war were large, consisting largely of coal. Graph No. 11 shows the changes in trade in minerals during the war.

EXPORTS OF MINERALS AND MINERAL PRODUCTS, 1913-MARCH, 1918.

Minerals and countries of destination.	1913	1914	1915	1916	1917	1918, Jan.- Mar.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Antimony.....					3	
Chalk:						
Chile.....		1	8			
Brazil.....			145			
Paraguay.....	34	49	90			
Uruguay.....	278	3	841			
Germany.....		4				
Total.....	312	53	1,084	1,032	1,842	240
Copper ore, with gold and silver.....					42	

Source: El Comercio Exterior Argentino, 1913-1918.

EXPORTS OF MINERALS AND MINERAL PRODUCTS, 1913-MARCH, 1918-Continued.

Minerals and countries of destination.	1913	1914	1915	1916	1917	1918, Jan.- Mar.
	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>
Copper ores:						
Chile.....	131		67			
United States.....	164					
United Kingdom.....			4			
Total.....	295		71	75	410	18
Copper, in bars: United States.....	90			145		
Lead ores: France.....	6			343	178	
Lead and silver: United Kingdom.....	3					
Lime:						
Chile.....			13			
Bolivia.....	3	7	10			
Brazil.....	4	1	1			
Paraguay.....	10	12	15			
Uruguay.....	6	2	7			
Total.....	23	22	46	177	76	15
Lime, borate of:						
Germany.....	626	113				
Belgium.....	160	150				
United Kingdom.....	93	310	150			
Uruguay.....	55	40	43			
Total.....	934	613	193	86		25
Marble onyx:						
Belgium.....	348	141				
Brazil.....	3	46	3			
France.....		8				
Uruguay.....	18		3			
Chile.....			2			
Total.....	369	195	8	11	29	60
Mica:						
Germany.....	1	1				
Belgium.....	2					
United Kingdom.....	3					
Total.....	6	1		5	70	34
Petroleum, crude:						
United States.....			8			
Netherlands.....			2			
Paraguay.....			1			
United Kingdom.....			1			
Sweden.....			1			
Uruguay.....			16			
Total.....			28	69	206	255
Quartz: Germany.....		5				10
Salt, coarse:						
Brazil.....		7	6			
Uruguay.....	25		123			
Paraguay.....		99	134			
Total.....	25	106	263	5,036	23,040	6,299
Fine salt.....					685	
Silver ores.....				1	4	
Silver, in bars.....					5	
Tin ore: Germany.....		1		9	5	
Wolfram:						
Germany.....	536	392				
United Kingdom.....		2				
United States.....			158			
Total.....	536	394	158	760	987	210
Zinc: Belgium.....	63				100	
Grand total.....	2,659	1,390	1,815	7,748	27,682	7,166

IMPORTS OF MINERALS AND MINERAL PRODUCTS, 1913-MARCH, 1918.¹

[Totals in long tons.]

Minerals.	1913	1914	1915	1916	1917	1918, Jan.- March.
Aluminum: Ingots.....	19	10	3	2	8	5
Bronze: Powder for lithographing.....	11	13	4	12	21	8
Chalk.....	2,305	1,271	698	759	474	131
Coal.....	4,046,278	3,421,526	2,543,887	1,884,781	707,712	138,171
Copper and bronze: Ingots and sheets.....	1,190	823	367	412	311	63
Gold:						
Grains, paste, dust.....					212,245	22,386
Sheets for gold plating.....	1888	1888	1888	1888	1888	1888
Iron:						
Bars and small plates.....	Not listed	38,579	14,041	19,924	18,438	1,441
Galvanized.....	91,198	41,609	40,657	14,809	8,200	1,514
Ingots and sheets.....	186,576	2,452	2,708	1,645	3,173	.....
Plates.....		51,006	15,315	18,077	12,775	2,543
Lead:						
Ingots and sheets.....	8,202	8,337	7,159	8,400	5,222	1,051
Plates.....	8	6	1	1888	1888	.....
Mercury.....	8	2	4	7	3	3
Metal: Antifriction.....	209	256	103	206	136	26
Petroleum.....	191,378	161,462	306,955	304,115	310,027	24,250
Silver:						
Bars.....	1	1	3	1	1	1
German: Plates.....	35	26	3	1	2	1
Sheets for plating.....	1888	1888	.....	1888	1888	.....
Steel: Ingots and sheets.....	6,854	8,492	4,365	1,750	1,214	104
Tin: Ingots and sheets.....	596	406	1,127	726	1,564	602
Tin plate:						
Crude.....	15,228	8,886	17,573	20,463	21,086	3,306
Cut for wrapping.....	1,635	1,660	7,060	7,757	10,484	5,196
Zinc:						
Ingots and bars.....	555	397	33	4	1888	3
Sheets, smooth or rough.....	2,850	995	458	287	366	56
Sheets for engraving.....	87	43	53	64	51	6
For wrapping.....	38	12	2	3	1888	.....

¹ Source: El Comercio Exterior Argentino, 1913-1918.² Grams.

VI. MANUFACTURING INDUSTRIES.

DEVELOPMENT BEFORE THE WAR.

Except for meat packing, flour milling, the dairy industries, and sugar refining, the manufactures of Argentina are comparatively trifling and are quite insufficient to meet local demands. To meet the needs of the Republic, immense quantities of foreign-made goods have to be imported. A study of Argentina's trade reveals clearly at the outset the general economic position of the country as an exporter of foodstuffs and an importer of many types of manufactured articles, such as clothing, machinery, railroad equipment, and hundreds of other items of manufactured goods.

The reasons for this situation lie in the general development of the country. Argentina is a comparatively sparsely populated country, with great agricultural resources which yield good profits upon comparatively short investments. Capital tends to be attracted to investments yielding the largest, surest, and quickest profits. As long as agriculture and stock raising combine to be as profitable as they are the greater part of Argentine capital and foreign capital attracted to that country will be invested in those resources rather than in manufacturing.

Manufacturing industries are not entirely lacking, however, in Argentina, and a considerable development has taken place during the last quarter of a century, as shown by the following table of figures quoted from the industrial census of 1895, of 1910, and of 1913:

DEVELOPMENT OF ARGENTINE INDUSTRIES.¹

[Values in United States dollars.]

Years.	Number of establishments.	Capital invested. ²	Production or annual sales.	Raw material consumed.	Horse-power used.	Number employed.
1895.....	22,204	\$91,367,000	(3)	(3)	27,227	145,650
1910.....	31,988	309,226,232	\$521,708,408	\$302,671,312	202,816	329,490
1913.....	48,779	759,756,475	791,260,627	461,881,333	678,757	410,201

¹ Source: Industrial census of Argentina.

² Values converted from Argentine pesos at \$0.3216 for 1895, and at \$0.425 for 1910 and 1913.

³ Figures not available.

The industries of Argentina (census of 1913) are listed in the following table, showing the importance of the various lines of manufacture. The values in Argentine paper currency have been converted into United States currency at the rate of 42.5 cents.

Industries.	Number of establishments.	Capital invested.	Total production.	Raw material consumed.	Horse-power used.	Number of persons employed.
Meat-packing houses	13	\$39,521,561	\$114,004,927	\$98,109,228	24,287	14,687
Flour mills	401	36,878,953	63,282,112	52,038,119	26,531	4,909
Sugar refineries	44	51,055,362	59,754,304	34,438,136	57,511	14,685
Preparation of wine	4,317	77,658,543	36,248,745	17,449,659	14,651	16,362
Bakeries	3,242	13,634,840	34,709,770	19,236,188	6,514	27,105
Foundries and metal works	1,177	25,389,184	24,987,634	12,851,834	14,161	16,109
Cigarette factories	55	13,552,383	22,471,474	6,553,601	1,191	4,295
Dairies, cheese factories, etc.	8,161	42,833,791	22,439,624	12,565,114	3,317	28,589
Tailors	3,083	14,365,803	21,554,202	14,750,637	34	21,380
Leather shoes	231	9,126,084	20,884,830	11,800,976	2,388	12,869
Sawmills	305	8,940,018	19,220,005	14,059,505	13,514	7,378
Extracts of tannin and preparation of firewood.	493	33,212,346	17,778,903	.....	12,874	19,616
Jute and cotton sacks	24	8,970,475	16,200,466	13,739,672	1,248	1,808
Lithographers and printers	938	12,338,093	15,409,435	5,380,739	2,985	11,491
Breweries	29	13,702,876	15,163,839	3,366,630	8,680	2,599
Carpentry, painting, and horse-shoeing.	4,681	9,970,046	15,150,120	6,257,618	3,970	18,454
Liquors	326	8,984,383	13,775,247	7,621,173	1,518	3,035
Tanneries	189	8,396,155	13,655,719	8,933,491	5,416	3,474
Woodworking	736	4,843,097	12,503,639	6,674,605	6,906	5,903
Cotton and woolen mills	81	9,155,267	10,722,594	5,993,741	6,887	8,384
Furniture, trunks, and tapestry.	1,058	9,242,590	9,771,501	3,798,159	2,206	8,101
Leather goods	986	5,349,305	9,746,658	5,968,603	326	5,497
Brick kilns	953	7,545,538	9,383,312	2,126,196	2,090	10,485
Preparation of yerba mate	31	3,137,775	9,328,448	5,327,953	1,128	1,051
Soap factories	294	4,111,091	9,123,774	6,340,394	964	2,092
Clothing, etc.	448	5,698,993	8,772,495	4,420,091	657	4,986
Chocolate and candy	299	4,672,106	8,761,916	6,108,327	2,337	3,854
Wagons and carriages	1,270	6,437,754	8,519,085	3,698,430	3,882	8,291
Macaroni and pastes	332	4,601,288	8,261,764	5,792,369	4,216	3,880
Ice and aerated waters	742	7,973,585	7,290,659	2,772,847	7,965	3,864
Rope and cloth shoes	241	3,714,781	7,133,657	3,892,221	1,097	4,764
Match factories	16	975,163	5,951,700	1,508,819	610	3,094
Crackers and cakes	207	2,800,278	4,451,572	2,369,431	588	2,062
Jewelry, watches, etc.	769	4,198,454	4,098,250	1,922,813	43	2,231
Hats	92	2,671,231	3,662,194	1,825,152	1,298	2,362
Paper and cardboard mills	11	4,922,945	3,616,611	1,914,971	10,860	1,901
Alcohol	187	3,935,447	3,364,134	128,775	1,456	1,133
Dressmakers	574	2,474,434	3,300,508	1,110,719	15	3,764
Tinsmiths, etc.	974	1,930,730	2,878,153	1,053,603	133	3,071
Preparing and refining oil	22	1,759,411	2,750,706	1,987,128	969	468
Fishing	4	1,957,295	2,416,961	10,625	17	278
Coffee roasters, etc.	54	1,537,225	2,300,725	1,542,618	191	517
Cigars and tobacco	179	1,579,330	2,162,705	1,111,775	95	2,826
Confectionery	185	1,493,698	2,024,446	1,126,378	113	1,856
Glass factories	16	2,479,875	1,807,950	537,338	269	2,136
Gas fitters, etc.	353	2,215,845	1,808,173	702,638	25	2,321
Cleaners and dyers	124	1,478,283	1,455,873	201,358	1,031	1,641
Artistic ironwork	35	987,308	1,434,744	622,541	242	827
Petroleum refineries	1	3,187,500	1,062,500	637,500	265	220
Washing wool	10	673,731	1,038,545	748,255	885	255
Ore smelting	29	8,741,770	744,987	4,250	797	793
Preparation of salted hides	8	68,425	209,950	189,788	55	45
Construction companies	197	10,587,395	.....	.....	565	7,664
Paving companies	14	3,853,914	5,397,755	3,056,876	140	1,932
Light and power companies	305	127,875,724	.....	.....	391,959	9,916
Grain elevators	19	8,641,962	.....	.....	6,137	1,666
Other	6,971	47,173,084	62,487,327	33,614,817	18,479	48,093
Total	48,779	759,756,475	791,260,627	461,881,333	678,757	410,201

Source: Commerce Reports, July 17, 1918.

MANUFACTURING INDUSTRIES DURING THE WAR

The diverting of the manufacturing productive power of the warring nations to war activities and the consequent increase in prices and decrease in supplies of practically all of the manufactured commodities normally imported by Argentina, together with the shortage of ships, forced its imports to decrease greatly during the war. The result to be expected was a tendency to increased domestic production of articles which it manufactured in limited quantities and to the establishment of new enterprises for producing others formerly

entirely imported. Lack of capital, iron, and domestic coal were the chief hindrances to the growth of manufacturing industries. Other materials necessary in manufacturing also had to be imported. Argentina, however, found it cheaper to manufacture some articles during the war that were imported before the war. It also exported to the warring nations large quantities of woolen blankets, leather saddles, boots and shoes, alcohol, etc. The manufacture of woolen blankets and boots and shoes increased several hundred per cent during 1917 and 1918, while the alcohol industry, which had almost entirely disappeared because of the high cost of manufacturing, has revived and alcohol is one of the important exports of the country.

When the source of supply of manufactured goods was cut off by the war the Republic had to exploit its own resources. Sulphate of aluminum (concentrated alum) is a good example; it is now being manufactured locally by the Federal Government under the direction of the Ministry of Public Works and is used extensively in the public water-filtering plants. It was formerly almost exclusively supplied by Germany. Sulphate of aluminum is found in the Province of Buenos Aires and the Territory of Pampa, and the industry is capable of supplying the nation's annual requirements, amounting to about 10,000 tons, at a cost less than it was formerly customary to pay to foreign manufacturers.

The manufacture of algarroba dye material is also a new industry which was started in 1918. It is used locally and is exported especially to the United States.

Since 1914 a number of new quebracho-extract plants have been established, thus greatly increasing the output. Tables, chairs, bathtubs, kitchen utensils, and toys are made in Argentina. Although they are not as finished as the imported, yet they are as strong. Cheaper qualities of tumblers, jugs, and lamp chimneys are manufactured.

Statistics of industrial development are not available for the war years, the census of 1913 quoted above being the latest source of complete information. It is difficult to determine the extent to which Argentina has developed industrially as a result of war conditions, and opinions vary considerably. Many believe that the development has been great since the year 1913 and that Argentina's production of manufactured articles has increased to such an extent that foreign countries will find competition with domestic goods a strong factor to be met in regaining Argentine markets for their exports.

The report of the Director General of Statistics for 1917¹, on the other hand, presents an analysis of Argentina's imports during the war years, from which he concludes that Argentina has not attained industrially as much as is generally supposed. The analysis, tables, and a chart are here reproduced for what they are worth, since they present an interesting study of Argentina's imports and since they are the only data available which throw light upon the extent of industrial development of the country during the war.

¹ Intercambio Económico de la República Argentina, 1910-1917; el Comercio Exterior Argentino en 1916 y 1917, Boletín 176, pp. 93-100.

The following classification of imports is first given, in order to divide those which indicate industrial expansion and those which indicate the consumption of foreign goods:

IMPORTS INTO ARGENTINA FOR 1913-1917, BY VALUE, CLASSIFIED ACCORDING TO THEIR ECONOMIC SIGNIFICANCE.¹

[Nominal values in gold pesos.]

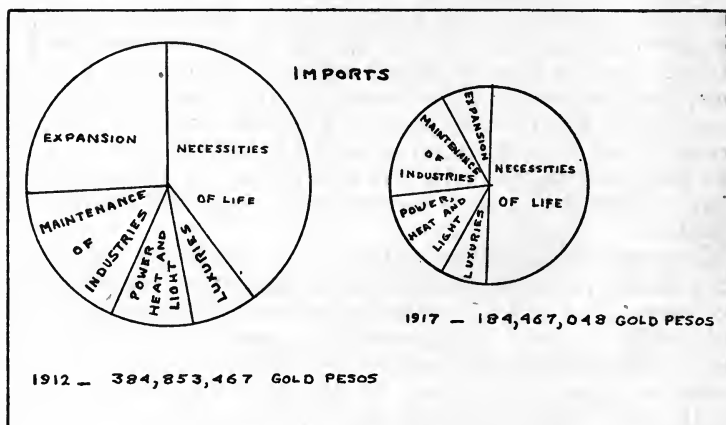
Groups of articles.	Years.				
	1913	1914	1915	1916	1917
Necessities: Foods in general, textiles, drugs, paper articles, leather, furniture, etc.	165,679,129	115,901,055	86,202,307	106,391,992	101,755,895
Luxuries: Jewels, precious stones, perfumery, silks, furs, tapestries, tobacco and Havana cigars, fine wines and liquors, preserves, etc.	31,528,397	17,565,506	13,396,296	15,923,307	13,366,968
Materials supplying light, heat, and power: Coal, petroleum, and petroleum products.	42,857,702	36,434,799	44,955,242	25,043,691	16,134,496
Materials for the maintenance of industries: Articles for agriculture and stockyards; seeds; breeding stock; textile materials, woven or raw; industrial oils; machine supplies; lumber, paints, etc.	72,382,710	37,380,480	48,662,134	43,083,309	35,830,990
Materials for the expansion of industries and establishment of new enterprises: Materials for railroad construction, industrial installations, etc.	108,904,604	64,536,060	33,676,754	26,967,023	17,378,699
Total	421,352,542	271,817,900	226,892,733	217,409,322	184,467,048

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 94.

² Applying in 1916 and 1917 estimated values which held in the former years up to 1916, these amounts increased to 39,598,801 gold pesos and 31,434,030 gold pesos, respectively.

NOTE.—The values, "nominal values," here used are based on the price schedule of the tariff of 1906, and changes indicate changes in quantity and not in true values. (See note, p. 6.)

GRAPH No. 12.



NOTE: VALUES ARE NOMINAL AND CHANGES, THEREFORE, INDICATE CHANGES IN QUANTITIES.

The general tendency of all these groups to decrease should be first noted. The graph¹ shows more clearly that the articles which are classed as those used to expand or establish industrial enterprises

¹ Copied and translated from El Comercio Exterior, Boletín 176.

have decreased both in actual amount and considerably in percentage of total imports, while imports of necessary articles for consumption, though they have been cut considerably during the war, constituted a much larger percentage of total imports in 1917 than in 1912.

Although at best the division of all imports into such a classification can only approximate the truth, the analysis is probably accurate enough to show at least that the difficulties of importing goods during the war must have been a hindrance as well as a stimulus to industrial development, since many materials necessary to greater development had also to be imported.

Tables giving further details regarding three of the groups in the above classification are given on page 93 in the section dealing with the nature of foreign trade during the war.

Only the results of a complete industrial census can determine the development of manufacturing industries during the war. Undoubtedly many industries have increased. Whether the increase was beyond the normal tendency and whether the stage of development reached will be maintained with the return of normal conditions it is difficult to foretell. Undoubtedly the tendency, apparent before the war, of manufacturing to increase will continue in the future, in spite of the difficulties of obtaining capital, fuel, and iron. It is certain, however, that agricultural and animal products will be the dominating sources of economic wealth and the field for enterprise for many years to come.

VII. TRANSPORTATION.

GENERAL SITUATION.

Argentina is a large country, with few people and an abundance of bulky natural resources, such as grains, cattle, and lumber. Conditions such as these require adequate transportation in order to realize rapid and full growth. In the populous central section of the Republic natural waterways do not exist. Railroad development in that region has therefore been forced into rapid growth. The characteristic feature of the system lies in the importance of freight traffic and the heavy tonnage during certain seasons of the year.

RIVERS AND HARBORS.

In the southern or Patagonian Territories many rivers, formed by the melting snows of the Andes, flow eastward through sheep-grazing regions until they enter the Atlantic. Situated at the river outlets are ports whose importance depends upon the richness of the hinterland grazing. Puerto Madryn, Puerto Gallegos, and Puerto Deseado are important ports of this type, whose exports consist mostly of wool. These ports are not adapted to large vessels. To aid in their development the Government has relieved them from customs duties until recent times.

In central Argentina the Andean rivers lose themselves on the arid plains, practically no waterways existing in the northern part of the Territory of Pampa Central and the Province of Buenos Aires. These are rich sections, and railroad development has increased to a remarkable extent. Many of these big railroads are responsible for the development of growing harbors. Such a group of ports is found about Bahia Blanca, which is the terminal of the Great Southern Railway, with excellent facilities for docking ships and handling grains. Distant only a few miles is the new harbor of Port White, with its electrically operated cranes and large grain elevators, and Puerto Militar, the naval base, where ship repairs are made.

In the northern Provinces the great waterways rising in the tropical regions unite to form the River Plate and offer profitable arteries for trade. This huge estuary, 25 miles across at the junction of the Parana and Uruguay, widens out to 217 miles at its meeting with the ocean. Montevideo and Buenos Aires, 180 miles apart, have developed as a result of favorable conditions. Buenos Aires, with a trade of approximately \$500,000,000 (United States currency) in 1913, handles an average of 60 per cent of the foreign trade of the Republic. In the value of its foreign business it is the seventh world port of importance, and in the Americas is surpassed only by New York City. The growth has developed in spite of some adverse conditions. The tides and storms affect harbor shipping. A sand bar, formed across the mouth at the point where the waters of the ocean force the river to slow down, must be kept open by a dredged channel. The water is also shallow in the immediate vicinity of Buenos Aires.

Congestion has developed, due to the concentration of the foreign trade in the one port. To relieve this, La Plata, 30 miles distant, has come into existence and to-day is the third port in Argentina in the value of foreign business transacted.

The Parana waterway is navigable for 200 miles for vessels of 6,000 tons. The greatest port is Rosario, 186 miles up the river. Ocean-going vessels enter Rosario, and several lines from New York advertise regular direct sailings to this port. Forest and agricultural products are exported. Other Parana ports of importance are Santa Fe, San Nicolas, and Zarate.

RAILWAYS.

Argentina is one of the many regions where nature offers certain conditions conducive to railroad growth, at the same time presenting other factors which tend to hinder progress. The actual development depends upon man's ability to utilize the natural advantages and overcome the drawbacks.

The vast stretches of level land, especially in central Argentina, the absence of spring freshets with attendant washouts, and the existence of bulky freight in the form of grains and live stock seem to form a combination especially conducive to rapid railroad extension. The moving of these heavy crops comes at one time in the year, because producers have provided no means of storing and conserving the resources at the place of production. The railroads are, therefore, severely taxed during short periods, and the problem is the maintenance of sufficient rolling stock for this busy season. Numerous complaints are voiced both by the Argentine shipper and the British-owned carrier. This phase of the railway problem is much more acute than in the United States wheat belt, because the people are scattered and their standard of living calls for fewer wants, so that the inbound hauls bring relatively small returns. Passenger traffic is also relatively unimportant. Another seeming drawback to railway development is the necessity of purchasing coal and railway materials abroad.

A study of the following table, listing railroads open for traffic, shows that the Argentine railroads are controlled by the Government and by private companies. The larger railroads are held under private ownership. A brief outline of railway development is necessary in a study of present conditions.

During the decade following 1850 a short line was constructed from Buenos Aires, the material employed being second-hand; the rolling stock required a 5 foot 6 inch gauge. This explains in part the diversity in the gauge among the railroads. The narrow gauge (2 feet 6 inches) is employed in the remote regions for hauling sugar cane, forest products, etc. These various widths cause confusion, because the rolling stock of the different railways is not interchangeable. Great inconvenience has been caused in the Cordoba-Rosario-Buenos Aires districts, and steps have been taken to standardize the gauge.

RAILWAYS OF ARGENTINA OPEN FOR TRAFFIC.¹

Railways.	Owner-ship.	Gauge.	Open to traffic.		
			January, 1911.	January, 1912.	January, 1913.
PRINCIPAL RAILWAYS.					
Central Norte.....	State.	Meter.....	<i>Kilo-meters.</i> 2,136	<i>Kilo-meters.</i> 2,290	<i>Kilo-meters.</i> 2,565
Argentino del Norte.....	do.	do.....	1,355	1,902	1,915
Chaco railways.....	do.	do.....		480	556
Cie. Fr. de la Province de Santa Fe.....		do.....	1,752	1,752	1,709
Cie. Gle. de la Province de Buenos Aires.....		do.....	964	1,166	1,267
Cordoba Central Railway.....		do.....	1,289	1,307	1,348
Cordoba Central Railway, Buenos Aires Extension.....		do.....	291	291	298
Cordoba and Rosario Railway.....		do.....	291	291	289
Rafaela Steam Tramway Co.....		do.....	86	86	86
Central Railway of Chubut.....		do.....	86	86	86
Transandine Railway (B. A. & P. Ry.).....		do.....	180	180	185
Ferrocarril del Este.....	State.	Standard.....		56	131
Buenos Aires Central.....		do.....	269	269	269
Entre Rios Railway.....		do.....	1,029	1,091	1,175
Argentine North Eastern.....		do.....	911	1,073	1,074
Patagonian railways.....	State.	5 ft. 6 in. (broad).....	290	632	740
Rosario Puerto Belgrano.....		do.....	797	797	797
B. A. Great Southern.....		do.....	4,978	5,449	5,608
B. A. and Western Railway.....		do.....	2,349	2,594	2,669
B. A. and Pacific Railway.....		do.....	2,391	2,414	2,491
B. A. and Pacific Railway (B. B. N. W. Ry.).....		do.....	1,161	1,195	1,321
B. A. and Pacific Railway (Argentine Great Western Ry.).....		do.....	1,396	1,450	1,530
Central Argentine Railway.....		do.....	4,280	4,722	4,751
SECONDARY RAILWAYS.					
Ferrocarril de la Plata.....		Standard.....	23	23	23
Colonia Ocampo.....		Meter.....	34	34	34
Vias de Catalina (Catalina Warehouses & Mole Co.).....		Broad.....	9	9	9
F. C. de Resistencia.....		75 cm.....	30	30	30
Tranvia Eléctricade Quilmes.....		Standard.....	15	15	15
Florencia & Piracua (forestal).....		3 ft. 6 in.....	20	20	20
Vias del Puerto de Buenos Aires (Buenos Aires Port Rys.).....	State.	Broad.....	5	5	5
Vias del Puerto Militar.....	do.	do.....	21	21	21
Po Tirol Col. Lucinda.....	Private.	2 ft.....	45	45	45
Colonias Las Palmas.....	do.	do.....	59	59	59
Peninsula Valdez.....	do.	2 ft. 6 in.....	32	32	32
Piraguacito Guillermina (forestal).....	do.	75 cm.....	114	114	114
Resistencia Col. Dufaur (forestal).....	do.	do.....	44	44	44
Chaco Norte Branch.....	do.	Meter.....	28	28	28
Total State railways.....			3,780	5,360	5,907
Total companies.....			24,503	26,215	26,953
Secondary railways: State railways.....			25	25	25
Secondary railways: companies.....			454	454	454
Grand total.....			28,762	32,035	33,319

¹ Source: The South American Yearbook, 1915, p. 83. See Commerce Reports, Apr. 18, 1919, p. 419.

With one exception, the railways with the largest mileage are privately controlled. Halsey¹ estimates as follows:

The value of the privately owned railways is estimated at 1,219,846,313 gold pesos, of which amount some 1,000,000,000 pesos consists of British investments. The following table lists the privately owned railways, classified by nationality of ownership, and gives the capitalization of each company. The figures are quoted in Argentine gold (1 gold peso=\$0.9648) and are those given in the official 1917 reports of the companies.

English:

	Gold pesos.
Central Argentine.....	286,097,200
Buenos Aires Great Southern.....	265,777,336
Buenos Aires Pacific.....	260,877,735

¹ Commerce Reports, Apr. 18, 1919.

English—Continued.	Gold pesos.
Buenos Aires Western.....	144, 716, 319
Cordoba Central.....	101, 653, 645
Entre Rios.....	40, 505, 538
Argentine North Eastern.....	31, 399, 716
Central of Chubut.....	1, 700, 322
French:	
Province of Santa Fe.....	52, 902, 878
General Ry. of Province of Buenos Aires.....	45, 335, 932
Rosario to Puerto Belgrano.....	30, 575, 937
Argentine:	
Buenos Aires Central.....	16, 893, 700

The prime purpose of the railway system is to carry domestic products to the exporting points and to distribute the imported goods throughout the Republic. Buenos Aires controls nearly 85 per cent of the imports and over 60 per cent of the exports; therefore the biggest railroads extend from that center. Rosario and Bahia Blanca are secondary points of radiation.¹

The Buenos Aires Great Southern, British owned and operating 3,792 miles, extends to the south and southwest of Buenos Aires through the Province of the same name. It controls special facilities for wheat handling at the export points in the vicinity of Bahia Blanca. The Buenos Aires & Pacific Railway has been one of the most adventurous roads in the country, branching out into the pastoral land west of the Province of Buenos Aires. By a series of absorptions it has acquired control of the transcontinental line running westward from Buenos Aires to the Chilean border.

The Central Argentine Railway serves the northern and central Provinces, including the cities of Buenos Aires, Rosario, Cordoba, Santa Fe, Tucuman, etc. It carries the products of rich cereal and pastoral sections.

The Buenos Aires Western Railway is the fourth in importance. It extends into the rich resources of Pampa and San Luis and hauls great quantities of freight.

Other railroads of substantial mileage are the Cordoba Central (1,205 miles), Entre Rios (831 miles), Argentine North Eastern (752 miles), and the Government-owned road, Central Norte (3,046 miles).

Argentina not only has the largest and best-managed system in Latin America but when compared with those in other countries it shows strength.

WORLD'S RAILROAD MILEAGE.¹

Countries.	Mileage.	Countries.	Mileage.
United States.....	246, 650	Austria-Hungary.....	27, 856
Germany.....	38, 493	Canada.....	25, 400
Russia in Europe.....	37, 960	Great Britain.....	23, 399
British India.....	32, 839	Argentina.....	22, 160
France.....	31, 219		

¹ Source: Statistics of the Director General of Commerce and Industry of Argentina, "Argentine International Trade," 1916, p. 47. Department of Agriculture Printing Office, Buenos Aires.

Of these 22,160 miles of railroad, which have not materially increased during the war, the Government controls 3,813 miles, or 17.2 per cent. The British manage about 14,000 miles, or 65 per

¹ See map, p. 8.

cent, and the money invested approximates \$1,000,000,000. The French are the next heaviest investors. They have built and now control three railroads in the northern Provinces, viz, the Province of Santa Fe (1,188 miles), the General Buenos Aires (790 miles), and the Rosario & Puerto Belgrano (493 miles). The capital invested amounted in 1917 to \$125,000,000. Argentine capital is interested in the Buenos Aires Central.

The Republic has built and controls several lines. This policy is based on the fact that certain regions, rich in natural resources, are too inaccessible for the private companies to venture the heavy initial expenditures. Most of these roads are in the far north, where people are few but resources abundant. The Central Norte (3,046 miles), the largest State-owned railway, showed a deficit each year before the war. The Government plans to open up the Patagonian country in the same manner.

RELATION OF GOVERNMENT TO RAILWAY EXPANSION.

As in most undeveloped countries, the Government in the early days gave all sorts of guaranties to those who were interested in railway development. Land on each side of the right of way was offered so that profits might be later made for the companies by its sale. Frequently the Republic guaranteed a fixed per cent dividend on the capital invested; "the companies carried guaranties of interest which were as high as 7 per cent. In 1895 the guaranties were relinquished by mutual consent and 4 per cent rescission bonds issued to the railways in payment thereof. Freedom from customs duties and taxes in general was still granted."¹ In 1907 the Mitre Law was passed (the terms of which were not compulsory but were voluntarily accepted by most of the privately owned lines) defining the liabilities and privileges of the companies and exempting them from customs duties on materials used and from all State, provincial, and municipal taxation. Three per cent of their net profits must go to the improvement of roads and bridges in their territories. This law did much to stabilize railroad management. The Entre Rios still operates under the terms of its original concession.

In the early days, so eager was the desire for growth that pledges were given by the Government which later could not be redeemed. To-day the Republic grants no special privileges. If a railroad is needed in a remote region and the initial expense is heavy, the State undertakes the work, hoping eventually to repay the loss by the sale of adjacent land at enhanced values and knowing that its action will benefit the nation as a whole.

The Government even goes so far as to strive to have new roads constructed, either parallel or at right angles to the established lines, so that competition may start and less profit accrue to foreign investors.

The following is quoted from Commerce Reports, April 18, 1919:

The pension law of 1913 provides that 3 per cent be deducted from the monthly salaries of employees and that a corresponding amount be paid to the pension fund by the companies, subject to certain exceptions—for instance, when the companies' profits fall below certain amounts. A new law was projected in 1915, but was satisfactory neither to the employers nor to the employees, and has never been passed.

¹ Commerce Reports, Apr. 18, 1919.

The railway companies have declared themselves willing to pay as much as 8 per cent of their wages sheet provided the workmen pay 5 per cent of their wages, the extra cost to the companies to be met by increased rates. The workmen are holding out for an increase in the amounts of the pensions to be received and for a reduction in the term of service necessary to procure a pension.

IMPORTS OF RAILWAY SUPPLIES.

The following is also quoted from Commerce Reports, April 18, 1919:

PRE-WAR IMPORTS.

The administrative offices of the large English companies are, without exception, situated in Buenos Aires, but the executive officers are English and prefer to make their purchases in England when possible. This fact explains the predominant place occupied by England among the countries sending railway equipment to Argentina during the five-year period (1909-1913) immediately preceding the war.

The following table gives the total amount of railway supplies imported from 1909 to 1913 by countries of origin. Since the tariff valuation is a fixed amount for each article, increase or decrease in these figures represents a difference in the amount of imports and not price fluctuations.

Countries of origin.	Locomotives.	Passenger cars.	Freight cars.	Rails, steel.	Rails, used.	Other material.
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Gold pesos.</i>
United Kingdom.....	612	372	10,957	426,124	161	26,924,577
United States.....	50	160	2,016	198,830	-----	1,075,661
Germany.....	525	26	1,576	289,889	1,340	2,657,117
Belgium.....	69	27	7,230	80,246	-----	2,685,042
France.....	15	6	588	40,685	38	754,469
All other countries.....	16	8	72	37,903	41	236,609
Total.....	1,287	599	22,439	1,073,677	1,580	34,333,475

STEADY DECREASE IN IMPORTS DURING WAR.

No detailed statistics for 1916, 1917, or 1918 are now available, but the following table, compiled from the official Argentine statistics for 1913-1917, demonstrates the continued decrease in total imports during successive war years:

Year.	Locomotives.	Passenger cars.	Freight cars.	Rails, steel.	Rails, used.	Other material.
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Metric tons.</i>	<i>Metric tons.</i>	<i>Gold pesos.</i>
1913.....	234	98	5,370	156,592	29	5,041,415
1914.....	189	69	68	84,936	13	4,116,622
1915.....	29	28	-----	13,391	21	1,690,786
1916.....	30	6	24	1,535	25	1,261,908
1917.....	2	5	28	640	14	822,065
Total.....	484	206	5,490	257,094	102	12,932,796

PRESENT CONDITIONS.

Since imports, not only of rolling stock but of miscellaneous supplies of all kinds, including raw materials, have been so greatly restricted for the past four years, the equipment of all the roads has become very materially depleted. The Patagonian State railways are reported to be especially hampered by lack of equipment. The Entre Rios, according to the latest company report, is in the market for one or more new train ferries. The annual purchases of the Government railways are said to amount to about 5,000,000 paper pesos. All the companies report that, in view of high prices, the difficulty of obtaining supplies, and unsettled conditions in Argentina, purchases have been reduced to the minimum amount consistent with the maintenance of satisfactory service.

PLAN OF ARGENTINE RAILWAYS.

The railways conform in general to the following plan of location:

I. Lines radiating from Buenos Aires:

- (a) Northeast, the three links over which the international trains run from Buenos Aires to Asuncion, Paraguay.
- (b) North through Rosario, Corrientes, Tucuman, and Jujuy to La Quiaca, on the Bolivian border, and Embarcacion, near the Bolivian border.
- (c) Northwest to Cordoba and Tucuman.
- (d) West through Mendoza to the Chilean border. Connections are made at Mendoza for Santiago and Valparaiso, Chile.
- (e) Southwest to Toay.
- (f) South to La Plata, Mar del Plata, and Bahia Blanca.

II. Patagonian railways.

The railways of the Pampas transport large quantities of grain and live stock. Oranges and semitropical fruits form an important part of the freight brought down from the northeast. Sugar is a leading item in the export freight of the Tucuman district and grapes and wine of the Mendoza section. Sheep and wool are the principal products of northern Patagonia and petroleum of the Comodoro Rivadavia region. Quebracho and firewood of all kinds have formed profitable and important parts of the local and through freight handled since the war by the lines penetrating the northern Provinces.

THE RAILROADS DURING THE WAR.

Railroad mileage remained practically constant during the last years of the war. In 1913 there were 20,805 miles; in 1914, 21,398; and in 1918, 22,160. The increase was caused by small extensions to the present systems. During the first years of the war the decreased exports resulted in the reduction of revenues. Then came the inability to import railway materials and coal. In December, 1918, the Argentine Southern Railway reported an increased expenditure for coal in 1917 of \$500,000. In order that the railroads might survive, the following increases were allowed in the freight rates, viz: October 1, 1915, 10 per cent increase; November 20, 1917, 22 per cent increase; May 1, 1918, 10 per cent increase.

The rates were 47.6 per cent higher in 1918 than early in 1915. One of the strongest factors causing this increase was the growing demands on the part of labor. A general strike was declared in September, 1917, which extended beyond the railroad men to the public utilities and the shipping industries. The strikes varied in intensity, but the railroads with the increased freight rates were able to offer better wages and granted other concessions, such as the 48-hour week, promotion according to merit, and no dismissal without trial. These strikes were the forerunners of those which are tying up harbor traffic in 1919.¹

Following are three further statements quoted from Commerce Reports, April 18, 1914, which include statistics regarding railroad development, capital invested, and railway stocks, quoted from three sources. They show the decrease in the business, receipts and capital invested, and the depreciation in the selling price of railway stocks during the war. With the return of normal conditions in shipping and in world trade railroad development will undoubtedly again make rapid progress.

¹ Special reference: Investments in Latin America—Special Agent Series No. 169 (1918), Bureau of Foreign and Domestic Commerce.

FINANCIAL OUTLOOK.

The following quotations of railway stocks which are listed on the London Stock Exchange represent the high and low prices for 1913 and the opening and closing prices for 1918. They show the very real depreciation in the selling price of these stocks since the war, but they show also that during the last year the movement has been appreciably upward. With a single exception, the closing price for 1918 is higher than the opening price.

Name of company.	1913		1918	
	High.	Low.	Opening.	Closing.
Buenos Aires Great Southern, ord.....	130	109	72½	72
Buenos Aires Western, ord.....	128	109	71	73½
Central Argentine, ord.....	112	100	59	66
Buenos Aires Pacific, ord.....	92	64	39	58½
Central Cordoba, ord.....	54	39	11½	17½
Entre Rios, ord.....	78	54	22¼	41

The following table gives the amount of gross revenue for the years 1916-17 and 1917-18, the percentage consumed in working expenses, and the dividends on ordinary stock, wherever it has been possible to obtain these details from published company reports:

Name of company.	Gross receipts.		Per cent consumed in working expenses.		Dividends.	
	1916-17	1917-18	1916-17	1917-18	1916-17	1917-18
Central Argentine.....	£5, 246, 626	£6, 184, 089	68. 71	73. 94	<i>Per cent.</i> 1	<i>Per cent.</i> 2
Great Southern.....	5, 734, 141	5, 838, 441	64. 06	76. 16	4	2
Pacific.....	4, 421, 368	5, 269, 979	65. 98	65. 80	.....	.....
Buenos Aires Western.....	2, 504, 939	2, 858, 639	66. 88	75. 68	3	2
Cordoba Central.....	1, 565, 292	1, 709, 227	73. 77	75. 16	.....	.....
Entre Rios.....	636, 526	847, 797	64. 38	62. 32	.....	.....
Central of Buenos Aires.....	297, 752	369, 853	54. 73	55. 05	(¹)	(¹)
Argentine Northeastern.....	389, 100	460, 000	(¹)	84. 80	.....	.....
Rosario Puerto Belgrano.....	2, 317, 330	2, 587, 117	85. 02	82. 77	(¹)	(¹)

¹ Figures not given.

² Argentine paper pesos.

The State railways usually show an annual deficit, but in 1915 and again in 1916 they showed a slight profit on the capital investment. No later reports are now available. A recent issue of the Review of the River Plate states that the Minister of Finance has been authorized to transfer the sum of 12,000,000 paper pesos to the Administrator of State Railways. One-half of this amount is to be utilized in canceling the outstanding liabilities of the administration and the remainder in the acquisition of materials urgently required for the State lines. It is understood that the transfer will be effected at the rate of 100,000 pesos a day.

CAPITAL INVESTED IN RAILROADS, JUNE 30, 1917.¹

Railroads.	Pesos.	Dollars.
Central Argentine (British).....	286, 097, 200	276, 083, 798
Buenos Aires Great Southern (British).....	248, 227, 900	239, 539, 924
Buenos Aires Western (British).....	144, 716, 300	139, 651, 229
Buenos Aires and Pacific (British).....	119, 548, 500	115, 364, 302
Argentine Great Western (British).....	63, 314, 600	61, 098, 589
Bahia Blanca and North Western (British).....	50, 809, 800	49, 031, 457
Villa Maria and Rufino (British).....	5, 748, 100	5, 546, 917
Argentine Transandine (British).....	11, 751, 600	11, 340, 294
Province of Santa Fe (French).....	52, 902, 900	51, 051, 288
General Railway Company of the Province of Buenos Aires (French).....	45, 207, 000	43, 624, 755
Cordoba Central (British).....	100, 510, 300	96, 992, 440
Buenos Aires Central (Argentine).....	16, 893, 700	16, 302, 420
Rosario to Puerto Belgrano (French).....	30, 575, 900	29, 505, 744
Steam Tramway of Rafaela (Argentine).....	470, 600	454, 129
Entre Rios (British).....	40, 505, 500	39, 087, 807
Argentine North Eastern (British).....	31, 399, 700	30, 300, 711
Buenos Aires, Ensenada and Southern Coast (British).....	4, 415, 600	4, 261, 054
Central Railway of Chubut (British).....	1, 700, 300	1, 640, 790
Total.....	1, 254, 795, 500	1, 210, 877, 658

¹ Source: Ernesto Tornquist & Cía., "Business Conditions in Argentina," Report No. 142 (Aug. 31, 1918), p. 19.

RAILWAY DEVELOPMENT AND EFFECT OF WAR.¹

[United States currency.]

Year.	Length (miles).	Capital invested.	Number of passengers.	Freight (metric tons).	Receipts.	Expenses.
1865.....	155	\$5, 191, 602	747, 684	71, 571	\$543, 424	\$423, 597
1880.....	1, 563	60, 760, 729	2, 751, 570	772, 717	6, 330, 802	2, 964, 659
1890.....	5, 861	309, 864, 097	10, 069, 606	5, 420, 782	25, 137, 326	16, 969, 992
1900.....	10, 292	522, 620, 476	18, 296, 422	12, 659, 831	39, 952, 301	22, 902, 108
1910.....	17, 392	868, 914, 999	59, 014, 600	33, 606, 626	107, 058, 457	63, 622, 090
1911.....	19, 619	1, 046, 639, 000	67, 457, 432	32, 338, 263	112, 359, 045	69, 095, 220
1912.....	19, 793	1, 081, 002, 000	73, 212, 084	38, 869, 804	125, 160, 672	78, 500, 905
1913.....	20, 805	1, 168, 108, 694	80, 279, 940	43, 038, 082	137, 255, 167	86, 289, 835
1914.....	21, 398	1, 193, 437, 716	81, 745, 535	35, 378, 830	114, 595, 120	77, 657, 593
1915.....	22, 037	1, 282, 861, 440	67, 401, 000	35, 655, 700	116, 783, 335	73, 942, 064
1916.....	22, 163	1, 286, 683, 840	64, 829, 000	36, 630, 600	121, 173, 892	78, 555, 729
1917.....	22, 172	1, 377, 409, 920	57, 595, 700	28, 792, 300	114, 830, 658	85, 999, 063

¹ Source: Halsey, "Investments in Latin America," Special Agents Series No. 169, Bureau of Foreign and Domestic Commerce, p. 46; Argentine International Trade, Director General of Commerce and Industry, 1916, p. 46.

AUTOMOBILES.¹

Except in the vicinity of the larger cities there are no highways in the North American meaning of the term. Over the level stretches vehicles may follow road trails in clouds of dust during the dry season. After heavy rains these roads are practically impassable, and the huge grain carts go lumbering along drawn by 20 or 30 powerful animals.

Before 1911 automobiles were imported almost exclusively from Europe for use by the wealthy in the larger cities. These were heavy, expensive cars. During the war North American demonstrators went into agricultural and pastoral Argentina and convinced the unbelievers that the light car from the States can stand the wear and tear of country life. Recently the demand has been so heavy that prospective buyers had to register for future deliveries. Greatly increased import duties (40 per cent increase) may retard the sales of Fords, Chevrolets, Maxwells, and other cars of light weight and low price. It would seem as if a demand for motor trucks would develop. These could carry the food supplies to cities and to the railway stations. The prevailing cheapness of dray animals and the expense of gasoline (40 cents to 70 cents a gallon), however, are holding back the sale of both motor trucks and farm tractors.

The State has attempted to improve the roadways by prescribing that 3 per cent of the net profits of the railway companies shall go toward highway improvement and bridge building in the neighborhood traversed. During 1913 the sum realized from this source was approximately \$1,500,000, and 970 miles of road were constructed or repaired and 27 bridges built. This revenue decreased during the war.

The prospect of marked progress in transportation facilities with the advent of the automobile is not in sight, principally because Argentina lacks the materials for construction and the labor for the maintenance of an effective system of highways.

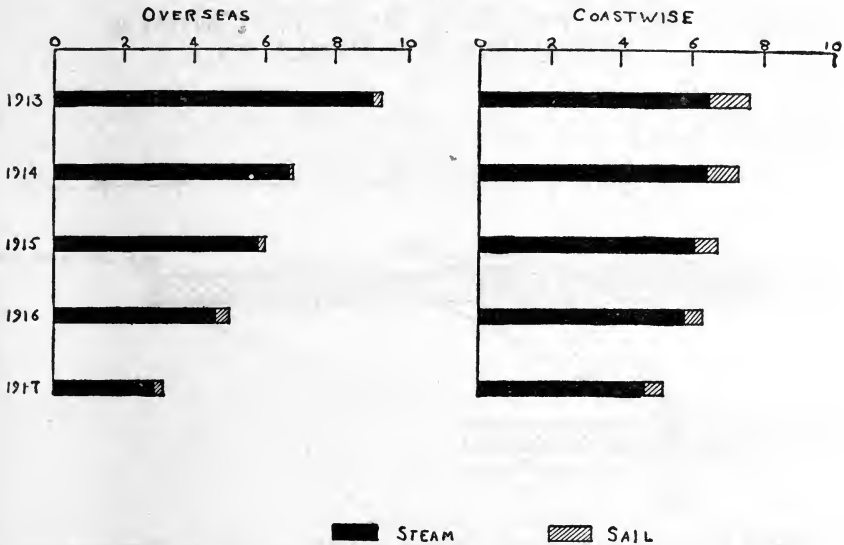
¹ Special reference: Argentine Market for Motor Vehicles, Miscellaneous Series No. 162, Bureau of Foreign and Domestic Commerce.

SHIPPING ENGAGED IN FOREIGN TRADE.

Argentina's overseas trade is carried by ships flying foreign flags. Its coast trade is carried largely by ships flying the Argentine flag. The war caused a reduction to one-third of the tonnage engaged in overseas trade, and reduced the proportion flying the British flag and increased the tonnage of the United States and the northern neutral countries. Tonnage engaged in coast trade has also decreased steadily since the beginning of the war, though the reduction has not been so great as in the case of overseas tonnage.

GRAPH No. 13.

TONNAGE ENGAGED IN ARGENTINE TRADE.



The following table and graph No. 13 show the total steam and sail tonnage entering and departing from Argentine ports in coastwise and overseas trade during the years 1913-1917:

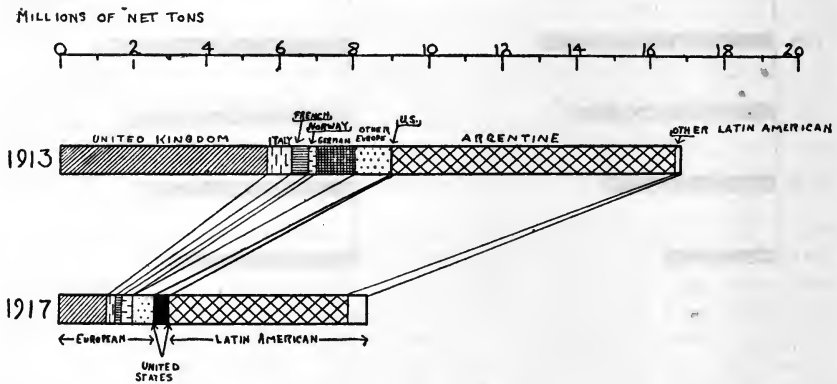
TOTAL TONNAGE CLEARING THROUGH ARGENTINE PORTS, 1913-1917.¹

	1913		1914		1915		1916		1917	
	No.	Net tons.	No.	Net tons.	No.	Net tons.	No.	Net tons.	No.	Net tons.
Overseas:										
Steam.....	3,311	9,026,214	2,412	6,704,948	2,328	5,849,144	1,943	4,689,083	1,108	2,966,518
Sail.....	206	256,961	116	133,048	160	201,193	259	370,588	216	294,917
Total.....	3,517	9,283,175	2,528	6,837,996	2,488	6,050,337	2,202	5,059,671	1,324	3,261,435
Coastwise:										
Steam.....	10,031	6,473,649	9,283	6,406,201	8,226	6,164,178	7,314	5,850,554	6,453	4,743,552
Sail.....	7,563	1,205,314	5,593	920,765	3,649	517,046	3,288	531,428	3,425	510,398
Total.....	17,594	7,678,963	14,876	7,326,966	11,875	6,781,224	10,602	6,381,982	9,878	5,253,950
Total:										
Steam.....	13,342	15,499,863	11,695	13,111,149	10,554	12,013,322	9,257	10,539,637	7,561	7,710,070
Sail.....	7,769	1,462,275	5,709	1,053,813	3,809	818,239	3,547	902,016	3,641	805,315
Total.....	21,111	16,962,138	17,404	14,164,962	14,363	12,831,561	12,804	11,441,653	11,202	8,515,385

¹ Source: El Comercio Exterior Argentino, Boletín No. 176, pp. 35, 36.

The war has caused a shifting in the nationality of ships engaged in Argentina's trade. The following table and graph No. 14 show the increase in Norwegian and United States tonnage and the decrease in other European tonnage. Great Britain still holds first place, however, among countries other than Latin American. It should be noted that the shipping flying flags of Latin American countries is approximately the tonnage of coastwise trade. As a rule, Argentine and Brazilian ships carry the coastwise trade and European and other vessels engage in overseas trade. The study of the table on page 81 shows that the vessels engaged in coast trade are smaller, and a slightly larger proportion are sailing vessels.

GRAPH No. 14. EFFECT OF THE WAR ON NATIONALITY OF TONNAGE IN ARGENTINA'S OVERSEAS AND COASTWISE TRADE



TONNAGE ENGAGED IN ARGENTINE TRADE IN 1913 AND 1917 IN OVERSEAS AND IN COASTWISE TRADE, BY NATIONALITY OF FLAG.

Vessels flying the flag of—	Net tons.	
	1913	1917
Europe:		
United Kingdom	5,731,278	1,355,883
Italy	607,948	254,382
France	556,925	239,745
Netherlands	203,247	60,526
Norway	207,397	292,310
Spain	183,365	188,218
Germany	1,118,560	.....
Other European	472,154	198,342
Total European	9,080,874	2,589,406
United States	14,999	447,887
Latin America:		
Brazil	46,367	112,475
Uruguay	47,036	367,649
Argentina	7,766,959	4,937,045
Other Latin American	5,939	30,424
Total Latin American	7,866,301	5,447,593
Japan	(¹)	30,499
Total	16,962,138	8,515,385

¹ 3,845 net tons in 1912.

POSSIBILITIES OF SHIPBUILDING OR PURCHASE OF SHIPS.

When the foreign shipping tonnage became so decreased that the exportable grains lay rotting and the railways feared demoralization on account of scarcity of fuel and the inability to obtain repair materials, then the Republic realized the disadvantages of complete dependence upon foreign shipping.

In August, 1918, the President of Argentina strongly urged that shipbuilding be fostered by concessions of land sites, by exemption from taxation, and by other forms of subsidies. The expense of the raw materials and the scarcity of skilled labor, however, will make the cost of construction prohibitive. Probably the Republic will find it advisable to buy ships abroad or to offer inducements for foreign shipping to sail under Argentine registry. Argentina will not, however, build or own ships to carry its overseas trade to any appreciable extent, for the same reasons that its industries will not develop rapidly in the near future. The bulk of Argentine capital will tend to be invested in agriculture and stock raising.

VIII. ARGENTINE FOREIGN TRADE.

IMPORTANCE OF THE FOREIGN TRADE.

An appreciation of Argentina's foreign trade will be gained by a comparison with that of other nations.

NATIONS LEADING IN VALUE OF FOREIGN TRADE, 1913.¹

Countries.	Foreign trade.	Countries.	Foreign trade.
1. United Kingdom.....	\$5,763,907,000	9. Austria-Hungary.....	\$1,253,785,000
2. Germany.....	4,966,665,000	10. Italy.....	1,185,345,000
3. United States.....	4,223,610,000	11. Canada.....	1,065,282,000
4. France.....	2,969,067,000	12. Argentina.....	² 873,387,000
5. Netherlands.....	2,814,350,000	13. Australia.....	753,528,000
6. Belgium.....	1,691,775,000	14. China.....	721,416,000
7. British India.....	1,386,880,000	15. Japan.....	678,222,000
8. Russia.....	1,385,644,000		

¹ Source: Statistical Abstract, United States, 1914.

² Corrected or "real value" as published by the Argentine Government in 1917 is \$979,844,595, or 1, 015,383,000 gold pesos converted to United States currency at \$0.965. (See note, p. 6, in this study. See also pp. 7-23 of *El Comercio Exterior Argentino en 1916 y 1917.*)

The importance of this trade is further emphasized when compared with that of other South American countries.

FOREIGN TRADE OF SOUTH AMERICAN COUNTRIES, 1913.¹

Countries.	Foreign trade.	Countries.	Foreign trade.
1. Argentina.....	\$873,387,000	6. Colombia.....	\$61,303,000
2. Brazil.....	642,451,000	7. Bolivia.....	57,909,000
3. Chile.....	264,927,000	8. Venezuela.....	43,329,000
4. Uruguay.....	115,808,000	9. Ecuador.....	24,371,000
5. Peru.....	74,100,000	10. Paraguay.....	13,751,000

¹ Source: Statistical Abstract, United States, 1914.

Argentina's foreign trade is the dominating factor in its economic life. Domestic trade and consumption are relatively small in proportion to foreign trade. Argentina is dependent upon foreign markets for a far larger proportion of the production of its industries than is the United States. Agricultural products have constituted about 48 per cent of Argentina's exports since 1898.² Argentina's export trade has been, therefore, largely dependent upon good crop seasons. If the weather fails, the Republic has less to exchange for the desired imports and lacks the wherewithal to pay the interest and dividends due foreign capitalists. On the other hand, Argentina is dependent on foreign countries for many essential imports. Its coal supply is almost entirely imported, as well as many important manufactured articles, such as textiles, automobiles, and all kinds of machinery and railroad equipment. Foreign trade plays a very large part in the economic life of Argentina.

² See also p. 88.

CHANGES IN TRADE DURING THE WAR.

The war produced marked changes in Argentina's trade. Some of these were temporary, some were merely the acceleration of tendencies already apparent, while others were changes due primarily to the war, which will probably persist after the return of normal conditions.

The factors brought about by the European war which had the most marked effect upon Argentina's trade were: (1) Increased demand for certain of its products, such as meats and wheat; (2) practical cessation of trade between Argentina and the Central Powers; (3) difficulties in obtaining certain imports usually purchased in countries then engaged in the war; (4) lack of shipping, which prevented its obtaining sufficient supplies of coal and distributing its corn crop; and (5) the great reduction in immigration, which affected the labor supply.

The effects of some of these factors upon Argentina's principal industries and its trade in some important products have been discussed in the preceding chapters. The effect on Argentina's foreign trade as a whole will now be traced with reference to changes in the direction of its trade and changes in products imported and exported.

EFFECT OF THE WAR ON VALUE AND QUANTITY OF TRADE.

A study of the value of foreign trade over a period of years is misleading if it is not borne in mind that prices may change from year to year and that an increase in the value of exports or imports does not necessarily mean an increase in the quantity of products in trade. This is especially true of the war period, when prices advanced in some cases so much that values of trade in commodities increased while the quantity decreased.

The Argentine Government has studied this condition and has published index numbers on trade since 1910, showing real changes in quantity, prices, and total values.¹ These index numbers and the figures of exports and imports, real and nominal, are here used to show the changes in quantity and value of Argentina's trade during the war.

EFFECT OF WAR ON THE QUANTITY OF IMPORTS AND EXPORTS.²

(Explanation: Prices were fixed in 1906 in the "Tariff of Values." The following values were based on this schedule and are, therefore, indicative only of changes in the quantities of goods imported and exported.)

Years.	Imports (tariff values).			Exports (prices based on those of 1910).		
	Gold pesos.	United States currency. ³	Quantity, index No.	Gold pesos.	United States currency. ³	Quantity, index No.
1910.....	351,770,656	339,458,682	100.0	389,071,360	375,453,862	100.0
1911.....	366,810,686	353,972,312	104.3	346,834,027	334,694,836	89.2
1912.....	384,853,469	371,383,598	109.4	512,625,466	494,683,575	131.8
1913.....	421,352,542	406,605,203	119.8	529,695,048	520,805,721	136.1
1914.....	271,817,900	262,304,274	77.3	397,915,223	383,988,190	102.2
1915.....	226,892,733	218,951,487	64.5	499,914,576	482,417,566	123.5
1916.....	217,409,322	209,799,996	61.8	435,783,412	420,530,993	112.0
1917.....	184,467,048	178,010,701	52.4	312,332,056	301,400,434	80.3

¹ El Comercio Exterior Argentino, Boletín 176, pp. 7-23. (See note, p. 6, this study.)

² Source: El Comercio Exterior Argentino, Boletín No. 176, pp. 15-19.

³ Converted at \$0.965=1 gold peso.

In the preceding table the year 1910 is taken as the standard year, and by maintaining the prices on imports fixed in 1906 by the Government, and assuming that the nature of these imports has not materially changed, a set of index numbers is obtained which represent the changes in the quantity of imports and exports.

The index numbers of quantities of imports are plainly indicative of a change. The war markedly reduced the quantity of a growing import trade.

The export index numbers do not show such a decided tendency. The low indices in 1911 and 1917 show the effects of poor harvests.

EFFECT OF WAR ON THE VALUE OF IMPORTS AND EXPORTS.¹

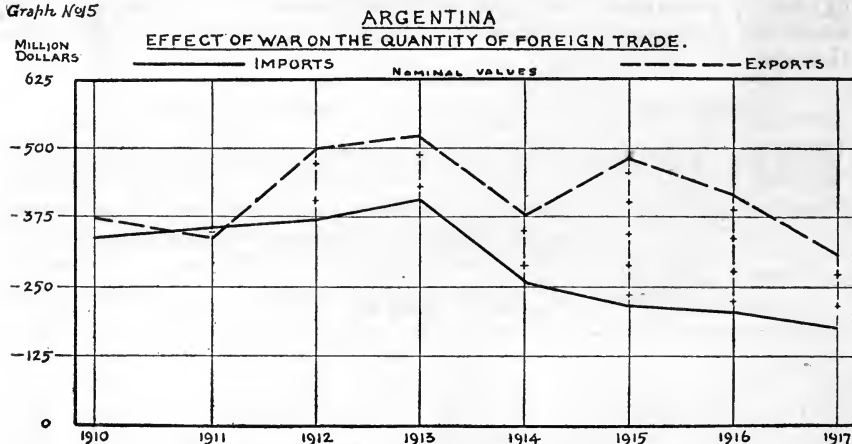
Years.	Imports (real values).			Exports (real prices).		
	Gold pesos.	U. S. currency. ²	Value, index No.	Gold pesos.	U. S. currency. ²	Value, index No.
1910.....	379,352,515	366,075,177	100.0	389,071,360	375,453,862	100.0
1911.....	405,019,992	390,844,292	106.7	342,317,258	330,336,154	88.0
1912.....	446,863,002	431,222,797	117.7	501,667,369	484,109,011	128.9
1913.....	496,227,094	478,859,145	130.8	519,156,011	500,985,551	133.4
1914.....	322,529,964	311,241,415	85.1	403,131,517	389,021,914	103.6
1915.....	305,488,006	294,795,926	80.6	582,179,279	561,803,004	149.6
1916.....	366,130,571	353,316,001	96.6	572,999,522	552,944,539	147.3
1917.....	380,321,178	367,009,937	100.2	550,170,049	530,914,097	141.4

¹ Source: El Comercio Exterior Argentino, Boletín No. 176, pp. 5-19.

² Converted at \$0.965=1 gold peso.

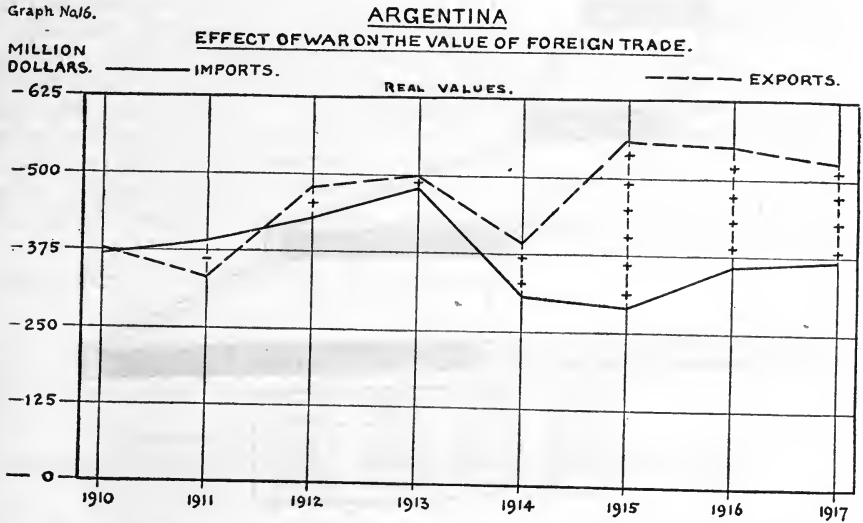
The foregoing table, giving the real values of imports and exports expressed by index numbers, shows a different condition from that presented by the quantity figures. It shows that while the limited shipping caused a reduction in the quantity of about one-half, yet the value of imports in 1917 was about the same as in 1910. The increased cost of the commodities explains the situation.

Graph No. 5



NOTE: Import values are given on the basis of the tariff values of 1906. Export values are calculated on the basis of prices in 1910. Changes indicated, therefore, represent changes in quantity of exports and imports.

The two graphs (Nos. 15 and 16) illustrate the foregoing tables. By comparing the two the increased value and decreased quantity in imports since 1915 can be seen, together with the rapid drop in the quantity of exports and slight drop in value during the same period.



NATURE OF ARGENTINE TRADE.

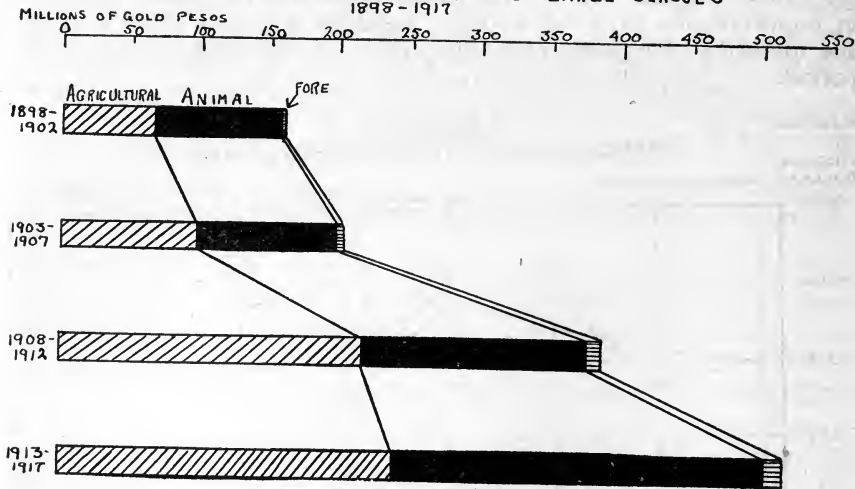
The products entering into Argentina's trade have been discussed in some detail in the early parts of this study. In the chapters dealing with agricultural, animal, and forest products Argentina's exports have been discussed and the effect of the war shown. In the chapter dealing with manufacturing industries the dependence of Argentina upon foreign countries for certain types of articles is emphasized and the effect of the war upon the type of commodities imported is indicated.

GENERAL TREND OF EXPORTS.

The following table and graph No. 17 and graph No. 2 on page 13 show the general tendency of Argentina's exports. The value of agricultural products exceeds that of animal products in good crop years, and both show a tendency to increase rapidly. The demand for foods to complement the limited production in the United States and the industrial nations of Europe will increase. Argentina's resources are great, and expansion of these fields of enterprise will continue.

GRAPH No. 17.

ARGENTINA'S EXPORTS BY THREE LARGE CLASSES
1898-1917



5 year Average.	Animal Products	Agricultural Products	Forest Products
1898-1902	93,873,593	65,008,541	2,894,319
1903-1907	100,709,119	149,612,279	5,325,873
1908-1912	188,310,759	217,465,137	9,415,367
1913-1917	261,206,879	240,627,699	15,813,149

EXPORTS OF MEAT AND AGRICULTURAL AND FOREST PRODUCTS FOR 20 YEARS.

Years.	Animal products (gold pesos).	Agricultural products (gold pesos).	Forest products (gold pesos).	Total exports (gold pesos).	Per cent of total exports.			
					Meat products.	Agricultural products.	Forest products.	All other products
1898.....	87,381,625	42,692,922	2,283,061	133,829,458	65.3	31.9	1.7	1.1
1899.....	115,546,906	65,155,995	2,208,916	184,917,531	62.3	35.2	1.2	1.3
1900.....	71,253,886	77,428,356	3,508,915	154,600,412	46.1	50.1	2.2	1.6
1901.....	90,646,411	71,596,099	2,281,496	167,716,102	54.0	42.7	1.7	1.6
1902.....	104,539,139	68,171,332	3,649,208	179,486,727	58.2	38.0	2.0	1.8
1903.....	109,181,342	105,251,309	3,472,708	220,984,524	49.4	47.6	1.6	1.4
1904.....	105,304,624	150,328,529	4,705,608	264,157,525	39.9	56.9	1.8	1.4
1905.....	141,042,986	170,235,235	7,125,332	322,843,841	43.7	52.7	2.2	1.4
1906.....	124,136,439	157,654,692	5,921,859	292,253,829	42.5	53.9	2.0	1.6
1907.....	123,820,205	164,091,631	5,342,357	296,204,369	41.8	55.4	1.8	1.0
1908.....	115,118,457	241,677,164	6,347,234	366,005,341	31.4	66.0	1.7	.9
1909.....	153,548,356	230,503,996	8,927,362	397,350,528	38.6	58.0	2.3	1.1
1910 ¹	177,252,895	196,916,103	10,564,525	389,071,360	45.5	50.6	2.7	1.2
1911.....	186,170,198	139,827,794	12,254,604	342,317,258	54.4	40.8	3.6	1.2
1912.....	209,463,892	278,400,627	8,983,112	501,667,369	41.7	55.5	1.8	1.0
1913.....	200,878,135	301,831,645	10,617,985	519,156,011	38.7	58.1	2.0	1.2
1914.....	198,694,743	191,293,774	9,238,745	409,131,517	49.3	47.4	2.3	1.0
1915.....	234,847,684	319,408,570	19,011,708	582,179,279	40.3	54.8	3.2	1.7
1916.....	295,578,360	246,122,234	22,452,080	572,999,522	51.6	42.9	3.9	1.6
1917.....	376,035,267	144,483,271	17,745,230	520,499,555	68.3	26.3	3.2	1.2

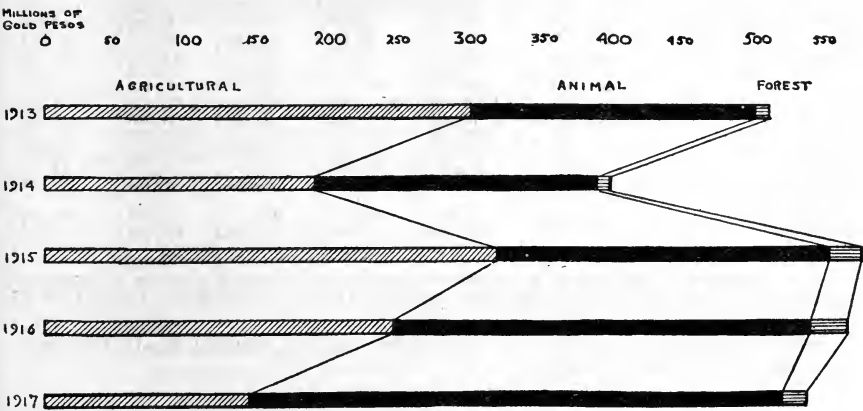
¹ After the year 1910 the figures in gold pesos for imports and exports indicated in the respective columns refer to real values. Before that year the figures differ only a very little from the effective values.

EFFECT OF THE WAR ON EXPORT TRADE.

Graphs Nos. 5, 7, and 9 on pages 33, 38 and 43 indicate the nature of Argentina's trade during the war. It is now necessary only to sum up these different phases of trade in order to have a definite idea of the changes brought about by the war.

Because of the very high freight rates resulting from the war and the fact that the shipping situation was so largely controlled by the allied nations, there was a strong tendency toward a decrease both in exports and imports. For certain products which Argentina was able to furnish the warring nations, however, shipping was provided, and exports of these commodities increased; meats and wool are the chief among these. Wheat was also shipped in large quantities, though the supply was greater than the demand, except during the

GRAPH No. 18. EFFECT OF THE WAR ON EXPORTS BY THREE CLASSES



poor crop year of 1917. Animal products, including meats, wool, hides, etc., increased steadily in both quantity and value, while exports of agricultural products fluctuated, decreasing sharply in 1914 and 1917. Preference was given to wheat over corn, exports of corn being reduced to an almost negligible quantity in 1917 and 1918.

A few products of manufacturing industries other than meat products increased, due to the stimulus afforded by the abnormally high prices obtainable for manufactured products, and, in the case of quebracho extract and linseed oil, due to the greater facility of shipping concentrated products rather than bulky raw material. Exports of flour, butter, cheese, alcohol, quebracho extract, woolen blankets, and some leather goods were stimulated by war conditions. The great bulk of export trade, however, continued to be agricultural and animal products, and will continue so for many years. Graph No. 18 and the table on the following page show the continued dominance of these exports during the war.

The following table shows the quantity of Argentina's chief exports during the war years:

EXPORTS OF THE PRINCIPAL PRODUCTS OF ARGENTINA, 1913-1917, BY QUANTITIES.¹

Domestic products.	1913	1914	1915	1916	1917
Cattle..... head.....	224,911	115,556	103,207	51,919	71,355
Horses..... do.....	13,549	15,882	52,163	28,314	11,760
Sheep..... do.....	103,997	52,085	24,168	37,324	69,924
Beef:					
Frozen..... metric tons.....	332,054	328,278	351,036	411,547	355,842
Refrigerated..... do.....	34,175	40,690	11,703	16,153	38,995
Meat, canned..... do.....	12,574	13,087	31,944	44,569	100,784
Mutton, frozen..... do.....	45,928	58,688	35,035	51,318	39,820
Bristle..... do.....	2,264	1,926	2,689	2,880	2,920
Skins:					
Goat..... do.....	1,990	1,448	2,360	2,558	1,762
Kid..... do.....	451	184	155	655	142
Sheep, uncleaned..... do.....	19,026	12,962	20,225	14,551	11,325
Hides:					
Cow, pickled..... do.....	65,755	63,557	64,248	77,841	76,182
Cow, dried..... do.....	29,219	14,508	25,579	21,549	19,305
Horse, pickled..... do.....	141	277	379	675	1,026
Horse, dried..... do.....	1,042	1,117	2,169	3,276	2,925
Wool, unwashed..... do.....	120,080	117,270	117,670	117,657	127,433
Butter..... do.....	3,784	3,482	4,623	5,671	9,830
Tallow and fat, melted..... do.....	63,089	51,224	49,866	48,685	67,810
Bones..... do.....	30,716	32,479	16,519	20,452	25,118
Oats..... do.....	889,744	353,700	592,797	804,443	271,713
Barley..... do.....	40,742	25,091	74,899	67,580	12,321
Linseed..... do.....	1,016,732	841,590	981,192	639,914	141,308
Corn..... do.....	4,806,951	3,542,280	4,330,594	2,873,910	893,939
Hay..... do.....	32,346	21,912	18,439	27,963	6,958
Wheat..... do.....	2,812,149	980,525	2,511,514	2,294,876	935,828
Wheat flour..... do.....	124,649	67,325	116,049	144,290	112,465
Bran, etc..... do.....	274,058	230,934	177,661	29,035	19,872
Oilseed cakes..... do.....	20,952	17,403	20,963	18,104	17,168
Quebracho:					
Extract..... do.....	79,684	80,153	100,213	97,574	90,777
Rollizos..... do.....	383,964	291,942	209,679	161,734	133,170

¹ Sources: Anuario de Estadística, 1913, pp. 424-465; Anuario del Comercio Exterior de la República Argentina, 1915, pp. 358-392; El Comercio Exterior Argentino en 1916 y 1917, Boletín No. 176, pp. 415-417.

Total exports by groups as classified in the official statistics are given in the following table:

EXPORTS OF ARGENTINA BY GROUPS OF ARTICLES FOR 1913-1917,¹ REAL VALUES.

[Gold pesos.]

Groups of articles.	1913	1914	1915	1916	1917
Animal products:					
Live animals.....	9,787,370	7,168,585	10,384,812	6,944,766	4,902,288
Animal products.....	167,011,867	170,952,289	195,045,556	244,878,849	239,160,561
Manufactured animal products.....	21,612,225	18,363,936	28,032,381	41,938,614	80,270,380
Animal residues.....	2,466,673	2,209,933	1,384,935	1,816,131	1,702,038
Total.....	200,878,135	198,694,743	234,847,684	295,578,360	376,035,267
Agricultural products:					
Raw materials.....	288,520,030	169,896,807	294,963,812	230,598,177	127,237,558
Vegetable materials, manufactured.....	7,744,404	16,201,097	21,575,497	14,429,685	15,613,807
Vegetable residues.....	5,567,211	5,195,870	2,869,261	1,094,372	1,631,906
Total.....	301,831,645	191,293,774	319,408,570	246,122,234	144,483,271
Forest products.....	10,617,985	9,238,745	19,011,708	22,452,080	17,745,230
Mineral products.....	194,690	83,871	180,336	1,191,523	1,252,064
Products of hunting and fishing.....	1,367,443	889,997	1,406,966	1,496,815	1,432,539
Other products.....	4,266,113	2,930,387	7,324,015	6,158,510	9,221,678
Grand total.....	519,156,011	403,131,517	582,179,279	572,999,522	550,170,049

¹ Source: Intercambio Económico de la República Argentina, 1910-1917, pp. 277-403 (Form p. 409); El Comercio Exterior Argentino en 1916 y 1917, Boletín No. 176.

Argentina will furnish large quantities of wheat, linseed, and meat products to Europe in 1919, and for many years it will be one of the chief exporters of these products.

GENERAL TREND OF IMPORTS.

The general tendency of imports prior to the war was one of increase in both value and quantity. There are a great many commodities which are imported in large quantities. A table enumerating these in detail would be a very long one. The following table, quoted from *El Comercio Exterior Argentino*,¹ shows that imports of commodities for use in agriculture and industry were slightly greater in value than those for consumption. The effect of the war was to reverse the situation. Undoubtedly, with the return of normal conditions, imports of machinery for industry, agricultural implements, railway equipment, and fuel will increase rapidly. As Argentina tends to manufacture more, this type of commodity will tend to increase, especially coal and products of iron and steel.

Articles are classified in the table as follows:

Unproductive articles, or necessities of life and luxuries, include—

- Foodstuffs.
- Beverages
- Tobacco.
- Clothing.
- Certain oils.
- Many chemical and pharmaceutical articles.
- The greater part of manufactures of—
 - Wood.
 - Paper.
 - Hides.
 - Iron and other metals.
 - Glassware and pottery.

Productive articles include—

- A. Articles transformed and preserved, or articles used for the maintenance of industry—
 - Animals for breeding purposes.
 - Special curative materials.
 - Textile materials, spun or raw.
 - Industrial oils.
 - Machine supplies.
 - Dyes and paints.
 - Iron products and other metals.
 - Coal and petroleum.
 - All seeds.
- B. Capitalization, or articles used for the expansion or establishment of industries—
 - Materials for railroads, etc.
 - Electrical materials.
 - Agricultural machines and implements.
 - Sand, pipes, glass, cement, etc., for construction.
 - Machines in general.
 - Iron columns, joists.
 - Copper and brass pipes, etc.

¹ Boletín 176, p. 422.

IMPORTS CLASSIFIED AS PRODUCTIVE OR UNPRODUCTIVE, 1908-1917.¹

[Gold pesos, nominal values indicating changes in quantity.]

Years.	Unproductive.	Productive.			Total imports.	Per cent represented by each classification.		
		Transformed or preserved.	Capitalization.	Total.		Unproductive.	Productive.	Total.
1908.....	129,513,825	69,273,053	74,185,858	143,458,911	272,972,736	47.4	52.6	100
1909.....	146,967,332	68,510,649	87,278,114	155,788,763	302,756,095	48.5	51.5	100
1910.....	172,396,910	84,356,403	95,017,343	179,373,746	351,770,656	49.0	51.0	100
1911.....	176,782,703	90,308,147	99,719,836	190,027,983	366,810,686	48.2	51.8	100
1912.....	183,505,196	101,375,102	99,973,171	201,348,273	384,853,469	47.7	52.3	100
1913.....	197,207,526	115,240,412	108,904,604	224,145,016	421,352,542	46.8	53.2	100
1914.....	133,466,561	73,815,279	64,536,060	138,351,339	271,817,900	49.1	50.9	100
1915.....	99,598,603	93,617,376	33,676,376	127,294,130	226,892,733	43.9	56.1	100
1916.....	122,315,299	68,127,000	26,967,023	95,094,023	217,409,233	56.3	43.7	100
1917.....	115,122,863	51,965,486	17,378,699	69,344,185	184,467,048	62.4	37.6	100

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 422.

The following three tables give further details of this classification, which is similar to that quoted on page 70 in the chapter dealing with the development of manufacturing industries.

IMPORTS INTO ARGENTINA OF MATERIALS FOR THE EXPANSION OF INDUSTRIES AND ESTABLISHMENT OF NEW ENTERPRISES.¹

[In gold pesos; nominal values.]

Groups of articles.	1913	1914	1915	1916	1917
Locomotion: Rails, locomotives, coaches and cars, railway coaches and supplies street car and other transportation—total.	31,027,296	21,463,673	5,946,624	5,554,490	4,816,005
Electricity: Wire and cable, conduction, dynamos, meters, accessories, etc.—total.	8,985,731	6,340,175	3,363,783	2,904,089	2,218,921
Agriculture: Machines and farm implements, wire for wire work, rods, iron for fences—total.	9,905,728	3,924,055	3,995,189	4,663,397	2,346,034
Construction: Sand, pipes, wood, marble, cement, glass, other—total.	42,159,440	20,847,791	14,780,599	11,113,653	5,839,116
Machines in general.	7,842,509	4,659,809	2,371,904	2,001,935	1,744,407
Iron and other metals: Columns, joists, pipes, copper and brass—total.	8,983,900	7,300,557	3,218,655	729,459	414,216
Total.....	108,904,604	64,636,060	33,676,754	26,967,023	17,378,699

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 96.² "Nominal values" are used because they are indicative of changes in quantity.IMPORTS INTO ARGENTINA OF LUXURIES FOR 1913-1917: NOMINAL VALUES IN GOLD PESOS.¹

Groups of articles.	1913	1914	1915	1916	1917
Preserves, canned, bottled.....	2,995,668	1,763,776	1,430,082	1,510,981	1,052,866
Cigars and tobacco.....	1,253,513	1,172,097	949,421	1,095,328	1,250,241
Wines, fine, liquors and aperitives.....	7,940,671	4,206,420	3,884,788	3,326,232	2,756,859
Silks and fine weaves, ready-made goods, casings, men's and women's hats.....	8,143,705	4,876,225	4,306,264	6,215,547	4,500,508
Furs, made-up, ornaments, silver trimmings hat plumes, etc.....	547,476	268,909	110,662	174,759	170,697
Carpets, tapestries, and furniture trimmings.....	1,131,303	842,987	193,513	288,495	254,890
Essences and perfumes.....	1,532,142	1,134,586	969,208	999,457	824,713
Furniture, bronze, wood and iron.....	2,911,393	1,548,940	676,665	547,653	491,602
Fine automobiles and other conveyances.....	1,790,872	509,846	301,118	752,277	1,100,931
Gold watches, fine jewels, precious stones, and silverware.....	3,071,796	1,088,202	494,960	969,082	924,301
Bronzes, paintings, and artistic marble.....	209,858	162,518	79,615	43,496	39,360
Total.....	31,528,397	17,565,506	13,396,296	15,923,307	13,366,696

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 98.

IMPORTS INTO ARGENTINA OF COAL, COKE, AND PETROLEUM, IN TONS, 1913-1917.¹

Articles.	1913	1914	1915	1916	1917
Coal.....	4,046,278	3,421,526	2,543,887	1,884,781	707,712
Coke.....	21,317	14,657	11,142	10,496	3,904
Petroleum.....	192,546	161,731	303,956	303,235	3,088,383
Total.....	4,260,141	3,597,985	2,858,985	2,198,512	1,019,999

¹ Source: El Comercio Exterior Argentino, Boletín 176, p. 97.

IMPORTS DURING THE WAR.

Argentina suffered a great decrease of imports during the war. Its industries and railroads were handicapped by a lack of fuel, machinery, and many essential materials; its population was deprived of a large quantity of luxuries of many kinds imported in large quantities before the war; and imports of articles of food and clothing were greatly reduced. The return of normal conditions will bring renewed competition between the industrial nations for the Argentine markets for manufactured goods, coal, and machinery, and other imports of the Republic will increase rapidly in the near future.

The preceding tables show the decrease in the *quantity* of imports by certain classes. The following table gives *real values* of all imports grouped as in the regular official statistics:

 IMPORTS INTO ARGENTINA BY GROUPS OF ARTICLES FOR 1913-1917: REAL VALUES.¹

[Gold pesos.]

Groups of articles.	1913	1914	1915	1916	1917
Livestock.....	2 1,419,290	2 1,244,271	2 1,317,456	2 2,468,811	2,447,005
Foods:					
Animal.....	7,750,182	6,594,526	5,165,284	4,917,534	3,219,563
Vegetable—					
Fruits.....	2,583,251	2 1,837,353	2 2,193,717	2 2,142,587	1,985,268
Spices and other condiments.....	25,116,199	12,638,820	12,193,827	15,341,500	42,533,150
Vegetables and cereals.....	9,849,569	6,172,664	6,691,627	6,926,385	9,390,455
Tea, coffee, cocoa, etc.....	14,770,943	12,983,820	13,860,410	13,339,848	15,607,226
Flours, pastes, starches, and other food products.....	2 1,434,066	2 1,056,413	2 976,982	2 805,765	914,367
Total foods.....	61,504,210	41,283,596	41,081,847	43,473,619	73,650,029
Tobacco and manufactures of.....	5,174,492	4,415,995	3,786,984	5,519,479	8,473,515
Drinks:					
Wines.....	12,934,732	8,246,768	6,465,388	5,377,703	4,953,530
Whisky and liquors.....	5,068,042	2,967,132	3,147,108	3,313,269	3,035,317
Other drinks.....	2 1,153,760	2 661,508	2 480,510	2 479,350	615,868
Total drinks.....	19,156,534	11,875,408	10,093,057	9,170,322	8,604,715
Textile materials and manufactures of:					
Silk.....	5,210,926	3,319,218	3,150,948	4,749,754	4,055,811
Wool.....	13,434,969	8,657,447	4,440,375	8,911,179	15,594,158
Cotton.....	43,726,148	26,154,712	25,040,688	46,918,990	51,544,627
Other fibrous textiles.....	41,613,198	20,210,356	35,410,576	32,590,556	13,357,410
Total textiles.....	103,985,241	58,341,733	68,042,587	93,170,476	84,552,066
Oils, fixed, mineral (petroleum), volatile, and fats.....	17,642,108	14,654,546	27,416,722	20,138,710	21,741,540
Products, chemical and pharmaceutical.....	21,385,347	16,224,251	20,885,230	22,306,850	19,706,699
Colors and dyes.....	2,603,894	1,754,106	1,570,799	2,734,164	3,822,349

¹ Source: Anuario del Comercio Exterior, and El Comercio Exterior, Boletín No. 176.

² Nominal values. These are used because no corrected values are published for these items in the years given. Real and nominal values in such cases differ only slightly.

IMPORTS INTO ARGENTINA BY GROUPS OF ARTICLES FOR 1913-1917: REAL VALUES—Continued.

[Gold pesos.]

Groups of articles.	1913	1914	1915	1916	1917
Woods, other woody substances and their manufactures:					
Raw materials and those slightly worked.	20,392,022	10,259,954	10,666,073	14,600,957	14,194,966
Manufactures.....	6,683,866	4,402,808	3,499,810	5,047,612	2,448,510
Total woods.....	27,075,888	14,662,762	14,165,883	19,648,569	16,643,476
Paper and manufactures of:					
Paper and cartons.....	5,843,027	4,317,173	5,119,810	8,902,218	11,277,779
Manufactures.....	3,781,702	3,081,477	2,473,684	3,516,724	1,885,947
Total paper.....	9,624,729	7,398,650	7,593,494	12,418,942	13,163,726
Leather and manufactures.....	5,734,313	3,938,861	2,645,722	2,840,698	3,217,714
Iron and manufactures:					
Raw materials and those slightly worked.	29,722,370	18,919,190	14,859,949	13,183,580	14,631,859
Manufactures of iron and steel.....	247,735,439	34,229,700	17,551,121	29,436,940	27,273,337
Total iron.....	77,457,809	53,148,890	32,411,070	42,620,520	41,905,196
Other metals and manufactures of:					
Raw materials and those slightly worked.	3,539,455	2,609,220	3,951,562	5,486,527	11,597,737
Manufactures.....	211,303,039	5,711,996	2,910,899	5,089,307	7,493,981
Total other metals.....	14,842,494	8,321,216	6,862,461	10,575,834	19,091,718
Materials for agriculture.....	15,703,491	7,505,124	10,412,799	13,243,771	11,745,722
Stone, earth, glassware, and ceramic products:					
Raw materials and those slightly worked.	53,013,001	40,557,811	41,442,894	48,964,086	27,077,657
Manufactures.....	6,368,045	4,491,747	3,210,535	2,959,035	2,325,620
Total.....	59,381,046	45,049,558	44,653,429	51,923,121	24,403,277
Electrical materials.....	18,117,277	13,850,435	6,055,699	5,664,652	8,558,180
Other articles and manufactures.....	28,040,306	18,860,592	7,092,567	8,212,030	13,594,251
Grand total.....	496,227,094	322,529,964	305,488,006	366,130,571	380,321,178

The following tables show the origin of some of the more important agricultural and industrial materials:

IMPORTS OF AGRICULTURAL IMPLEMENTS, 1913, 1917, and 1918.¹

[Values in United States currency.]

By countries, 1913.	Mowers and reapers.	Binder twine.	Thrashing machines.	Plows.	Plow-shares.	Seeders.
Germany.....		\$23,059	\$33,366	\$26,808	\$9,196	\$1,243
Belgium.....		54,774			2,824	
Canada.....	\$304,835		11,493	21,799	129	15,257
Cuba.....		4,439				
United States.....	640,558	1,484,826	870,101	1,190,554	212,147	339,595
United Kingdom.....	29,973	43,111	460,025	8,077	1,898	
Australia.....	863,289				172	
Austria-Hungary.....	1,737		1,201	6		
Denmark.....						
France.....			965	3,599	6,796	29
Chile.....				405		
Spain.....				217		21
Italy.....				64		29
Total 1913.....	1,840,392	1,610,209	1,377,151	1,251,530	233,162	356,174
Total 1917 ²	162,902	1,614,874	49,293	397,542	165,311	77,223
Total 1918 (6 months) ²	105,658	49,254	41,881	200,284	108,008	70,348

¹ Source: Anuario del Comercio Exterior de la República Argentina.² Not listed by countries for 1917 and 1918.

UNITED STATES EXPORTS TO ARGENTINA OF AGRICULTURAL IMPLEMENTS, FISCAL YEARS 1913-1918: VALUES.¹

Articles.	1913	1914	1915	1916	1917	1918
Agricultural machinery:						
Hay rakes and tedders.....	\$29,011	\$78,202	\$2,649	\$48,295	\$16,123	\$36,306
Mowers and reapers.....	1,650,688	1,102,499	412,289	770,436	347,271	349,668
Planters and seeders.....	323,164	309,349	119,953	85,688	123,336	100,770
Plows and cultivators.....	1,755,705	1,420,748	666,613	1,413,763	1,032,960	890,006
Thrashers.....	1,318,397	689,750	191,596	143,822	67,921	87,255
All other and parts of ²	1,346,554	744,338	348,506	916,195	979,630	505,808
Total.....	6,423,519	4,344,886	1,741,606	3,378,199	2,567,241	1,969,813
Milling machinery.....	33,776	94,497	3,160	21,901	8,004	42,111
Binder twine.....	1,928,006	1,200,590	264,140	1,890,357	911,429	3,266,790

¹ Source: Foreign Commerce and Navigation of the United States.² Including corn shellers and huskers, and shredders, fanning and cane mills, etc.

PRINCIPAL SOURCES OF THE IMPORTANT TEXTILE AND METAL IMPORTS, 1913 AND 1915.

Articles.	1913							
	Total imports.		Percentage from—					
	Gold pesos.	U. S. currency.	United States.	United Kingdom.	Germany.	France.	Italy.	Belgium.
Textiles:								
Colored woven prints....	12,875,730	\$12,425,079	.....	40.0	8.9	2.6	38.5	7.7
Woolen cloths.....	7,092,134	6,940,409	.....	63.2	15.9	12.8	4.1	2.7
Bleached cotton goods....	4,841,056	4,671,619	.....	78.3	3.0	2.1	12.7	2.2
Cotton prints.....	4,119,377	3,975,199	.....	67.5	10.5	.....	13.1	.....
Woolen and mixed goods.	3,549,973	3,425,724	.....	67.9	16.0	4.1	8.5	.....
Silk cloth.....	2,852,401	2,752,567	.....	11.7	12.8	56.8	11.8	.....
Cotton and silk goods....	1,682,660	1,623,767	.....	34.0	15.6	36.4	9.2	.....
Spun cotton, unbleached	1,671,248	1,612,754	.....	19.1	.....	.....	43.0	12.5
Cotton and woolen goods	1,313,442	1,267,472	.....	42.0	26.8	9.5	8.1	11.8
Linen cloth.....	1,001,915	966,847	.....	51.1	13.0	12.6	.....	2.12
Iron and steel products:								
Galvanized iron.....	6,383,860	6,160,425	4.7	84.4	6.5	.....	.....	3.9
Sheet iron.....	6,378,999	6,155,734	7.1	9.7	47.4	.....	.....	34.4
Steel rails.....	6,263,680	6,044,451	26.1	31.8	29.6	.....	.....	.....
Machinery (various kinds)	6,210,438	5,993,073	13.5	21.8	46.4	.....	.....	.....
Railway material.....	5,041,415	4,864,965	5.0	72.1	10.0	.....	.....	9.8
Wire cables for electrical purposes.....	4,945,631	4,772,534	3.1	40.9	46.6	.....	6.2	.....
Wrought iron.....	4,234,929	4,086,706	2.5	58.0	21.4	.....	.....	12.6
Iron columns and beams	4,119,377	3,975,199	.....	67.5	10.5	.....	13.1	.....
Locomotives.....	3,486,324	3,364,303	1.9	75.6	18.3	.....	.....	2.3
Spare parts of machinery	2,734,468	2,638,762	29.1	21.7	25.5	.....	.....	10.9
Galvanized wire.....	2,125,538	2,051,144	23.3	11.0	61.7	.....	.....	.....
Galvanized-iron pipes....	2,024,902	1,954,030	12.0	62.0	22.9	.....	.....	.....
Railway cars.....	1,454,376	1,403,473	8.3	89.7	.....	.....	.....	2.8
Bolts and nuts.....	1,331,724	1,285,114	24.3	36.5	14.4	.....	.....	16.0
Automobiles.....	5,382,604	5,194,213	19.3	.....	16.3	36.8	9.5	.....

PRINCIPAL SOURCES OF THE IMPORTANT TEXTILE AND METAL IMPORTS, 1913 AND 1915—Continued.

Articles.	1915							
	Total imports.		Percentage from—					
	Gold pesos.	U. S. currency.	United States.	United Kingdom.	Germany.	France.	Italy.	Belgium.
Textiles:								
Colored woven prints	6,932,932	\$6,690,279	1.3	44.9	3.7	1.3	44.7	1.9
Woolen cloths	3,105,206	2,996,524	3.6	69.8	3.7	9.1	8.5	.....
Bleached cotton goods	3,439,899	3,319,503	.....	87.2	.....	.....	9.3	.....
Cotton prints	2,263,171	2,183,960	.....	76.7	2.1	.....	14.1	.....
Woolen and mixed goods	1,083,681	1,045,752	.....	73.1	7.8	.....	12.0	.....
Silk cloth	2,070,135	1,997,680	.....	16.8	.....	48.5	14.6	.....
Cotton and silk goods	644,516	621,958	.....	22.7	3.9	31.9	32.3	.....
Spun cotton, unbleached	886,284	855,264	4.3	81.8	.....	.....	11.4	.....
Cotton and woolen goods	(1)	(1)	.....	.....	.....	.....	.....	.....
Linen cloth	(1)	(1)	.....	.....	.....	.....	.....	.....
Iron and steel products:								
Galvanized iron	2,845,990	2,746,380	26.5	71.7	.....	.....	.....	.....
Sheet iron	(1)	(1)	.....	.....	.....	.....	.....	.....
Steel rails	535,640	516,893	61.7	16.9	21.4	.....	.....	.....
Machinery (various kinds)	1,445,126	1,394,547	31.9	31.8	10.6	.....	15.7	.....
Railway material	1,690,786	1,631,608	8.6	90.0	.....	.....	.....	.....
Wire cables for electrical purposes	1,689,251	1,630,127	14.3	50.9	.....	.....	31.6	.....
Wrought iron	3,371,810	3,253,797	10.0	87.5	.....	.....	.....	.....
Iron columns and beams	(1)	(1)	.....	.....	.....	.....	.....	.....
Locomotives	761,330	734,683	.....	99.0	.....	.....	.....	.....
Spare parts of machinery	1,222,300	1,179,520	35.3	34.5	7.0	.....	6.8	.....
Galvanized wire	973,029	938,973	.....	83.5	.....	.....	.....	.....
Galvanized-iron pipes	(1)	(1)	.....	.....	.....	.....	.....	.....
Railway cars	(1)	(1)	.....	.....	.....	.....	.....	.....
Bolts and nuts	(1)	(1)	.....	.....	.....	.....	.....	.....
Automobiles	632,080	609,957	73.1	5.0	.....	9.3	6.5	.....

¹ Less than \$500,000.

DIRECTION OF TRADE.

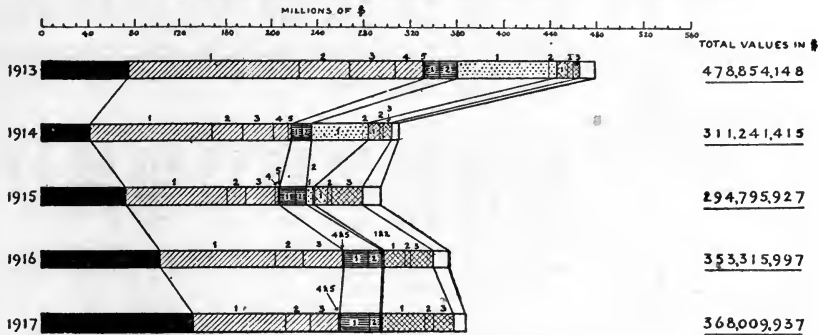
The greater part of the foreign trade of Argentina is normally carried on with the European nations. This amounted to 52 per cent of the total in 1915 and 70 per cent in 1913. The two features responsible for the big business involved are: (1) The European need for Argentine products, and (2) the heavy investments of European capital, which are conducive to trade connections. Before the war England was first and Germany second among the customers of the Republic. Graph No. 19 shows the changes, in real values, which took place during the war. The United States was brought into first position and the German trade became negligible. Italy, France, and Spain conducted an appreciable portion of the trade. The war also stimulated trade between the South American Republics. The trade of Argentina with its neighbors is of growing importance, and the amount of business with Brazil is assuming large proportions.

Imports show that the lost import trade from Germany and the reduced imports from other European countries are partially offset by increased trade with Latin American countries. Brazil and Chile lead in this increase, each showing a gain of 500 per cent. The value of imports from Brazil were, in 1917, \$36,549,985, as compared with \$3,601,596 from Chile.

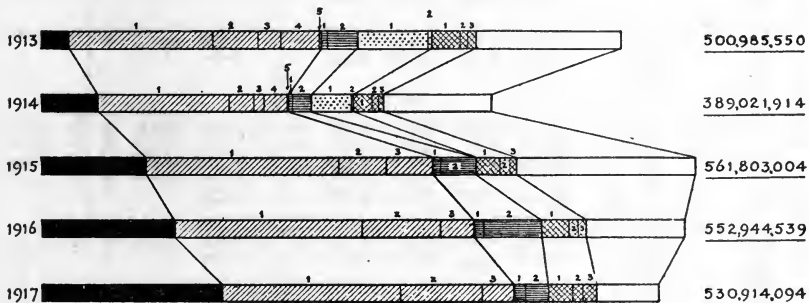
GRAPH No. 12.

ARGENTINA
DIRECTION OF TRADE, 1913-1917.

IMPORTS BY COUNTRIES, GROUPS OF COUNTRIES AND VALUES IN \$.



EXPORTS BY COUNTRIES, GROUPS OF COUNTRIES AND VALUES IN \$.



LEGEND

COUNTRIES AND GROUPS OF COUNTRIES

- | | | | | |
|----------------|------------------------------------|--|---|--|
| UNITED STATES | EUROPEAN ALLIES | UNITED KINGDOM - 1
FRANCE - 2
ITALY - 3
BELGIUM - 4
RUSSIA - 5 | EUROPEAN NEUTRALS | SPAIN - 1
SWITZERLAND
HOLLAND
SWEDEN
NORWAY
DENMARK |
| CENTRAL POWERS | GERMANY - 1
AUSTRIA-HUNGARY - 2 | LATIN AMERICAN COUNTRIES | BRAZIL - 1
URUGUAY - 2
BOLIVIA
CHILE
CUBA
MEXICO
PARAGUAY
PERU | ALL OTHER COUNTRIES |

The export trade to the Central Powers went almost entirely to the Allies, this trade being largely in foodstuffs for the armies. The increase in exports to the United States is particularly striking.

THE EFFECT OF THE WAR ON THE TRADE WITH THE PRINCIPAL NATIONS, 1913-1917.¹

[Real values. Values converted to United States currency at \$0.965.]

Countries.	1913		1914		1915		1916		1917	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
United States and the Allies:										
United States—										
Imports.....	\$70,457,225	14.7	\$41,984,982	13.4	\$72,944,239	19.2	\$103,243,910	29.2	\$133,251,948	36.3
Exports.....	23,728,409	4.7	47,757,114	12.3	40,426,362	13.0	113,539,590	20.9	155,626,267	29.3
Total.....	94,185,634	9.6	89,722,096	12.8	163,370,601	13.1	216,783,500	24.1	288,878,235	32.2
United Kingdom—										
Imports.....	148,661,640	31.1	105,886,348	34.0	88,041,188	35.6	99,591,784	28.2	80,080,322	21.8
Exports.....	124,750,403	24.9	113,754,620	29.3	166,043,514	29.4	162,642,878	29.4	185,217,373	29.2
Total.....	273,412,043	27.9	219,590,968	31.4	254,084,702	29.7	262,234,662	28.9	235,297,695	26.2
France—										
Imports.....	43,246,697	9.0	25,629,199	8.2	17,289,070	5.6	24,374,374	6.9	21,811,554	5.9
Exports.....	39,091,869	7.8	22,240,606	5.7	40,618,098	8.1	65,907,757	11.9	70,029,308	13.2
Total.....	82,338,566	8.4	47,869,805	6.8	57,907,168	6.8	90,282,131	10.0	91,840,862	10.2
Italy—										
Imports.....	39,514,362	8.3	28,465,876	9.2	27,495,396	9.8	34,675,580	9.8	25,421,356	6.9
Exports.....	20,768,509	4.1	9,519,906	2.4	41,203,303	9.8	27,639,177	5.0	27,883,227	5.3
Total.....	60,282,871	6.2	37,985,782	5.4	68,700,699	8.0	62,314,757	6.9	53,304,583	5.9
Japan—										
Imports.....	986,151	.2	557,474	.2	1,062,098	.4	1,921,329	.5	3,203,081	.9
Exports.....	18,179	.1	557,474	.1	1,062,098	.1	1,921,329	.2	2,086,725	.4
Total.....	1,004,330								5,289,806	.6
Belgium—										
Imports.....	24,935,361	5.2	13,891,274	4.4	1,108,922	.7	449,265	.1	92,675	
Exports.....	33,923,636	6.8	19,494,731	5.0	1,108,922	.1	449,265			
Total.....	58,858,997	6.0	33,386,005	4.8					92,675	
Russia—										
Imports.....	508,665	.1	297,039	.1	16,495		16,947		1,428	
Exports.....	630,086	.1	286,175	.1	16,495		3,003,507	.5		
Total.....	1,138,751	.1	583,214	.1			3,020,454	.3	1,428	
Canada—										
Imports.....	1,876,134	.4	552,239	.2	1,470,549	.5	1,830,136	.5	465,910	.1
Exports.....	1,876,134	.2	552,239	.1	1,470,549	.2	24,059		9,673	.1
Total.....							1,854,195	.2	475,583	
Australia—										
Imports.....	1,162,142	.2	55,460		10,832		16,474		32	
Exports.....	141,741	.1	297,201	.1	5,004,228	.9	16,474			
Total.....	1,162,142	.1			5,015,160	.6				

European neutrals:										
Spain—										
Imports.....	14, 072, 177	2.9	9, 847, 181	3.1	14, 728, 188	5.3	21, 901, 610	6.2	26, 530, 672	7.2
Exports.....	4, 983, 723	1.0	2, 678, 362	.7	7, 188, 027	1.3	8, 718, 465	1.6	8, 814, 880	1.7
Total.....	19, 065, 900	1.9	12, 525, 543	1.8	21, 916, 215	2.6	30, 620, 075	3.4	35, 345, 552	3.9
Switzerland—										
Imports.....	3, 123, 103	.7	1, 651, 689	.5	1, 996, 461	.7	3, 280, 336	.9	2, 907, 705	.8
Exports.....	3, 123, 103	.3	1, 651, 689	.2	1, 996, 461	.2	154, 982	.4	2, 249, 272	.4
Total.....	4, 627, 387	1.0	3, 205, 994	1.0	2, 573, 304	.9	3, 587, 726	1.0	2, 187, 534	.6
Netherlands—										
Imports.....	23, 447, 504	2.0	12, 442, 450	3.2	18, 933, 708	3.4	27, 988, 312	5.1	5, 089, 677	1.0
Exports.....	28, 074, 891	2.9	15, 648, 444	2.2	21, 527, 012	2.5	31, 576, 038	3.5	7, 277, 211	.8
Total.....	3, 548, 128	.7	2, 156, 498	.5	2, 678, 007	.9	10, 411, 964	1.0	1, 952, 175	.5
Sweden—										
Imports.....	1, 113, 079	.2	1, 865, 455	.7	5, 053, 898	.9	30, 266, 621	1.9	2, 574, 871	.5
Exports.....	4, 661, 207	.5	4, 021, 953	.6	7, 731, 905	.9	13, 678, 615	1.5	4, 527, 046	.5
Total.....	2, 568, 444	.5	1, 685, 083	.5	1, 777, 127	.6	1, 352, 469	.4	1, 563, 900	.4
Norway—										
Imports.....	1, 117, 367	.2	2, 049, 099	.5	2, 815, 047	.5	4, 202, 673	.8	7, 540, 669	1.4
Exports.....	3, 685, 811	.4	3, 724, 182	.5	4, 562, 174	.5	5, 555, 142	.6	9, 104, 569	1.0
Total.....	231, 825	.....	165, 191	.....	798, 615	.3	673, 749	.2	193, 469	.1
Denmark—										
Imports.....	759, 482	.2	862, 760	.2	1, 549, 664	.3	6, 204, 108	1.1	3, 830, 159	.7
Exports.....	991, 307	.1	1, 027, 951	.1	2, 348, 279	.3	6, 877, 857	.8	4, 023, 628	.4
Total.....	80, 996, 103	16.9	45, 775, 175	14.8	7, 343, 028	4.5	570, 199	.2	284, 342	.1
Germany—										
Imports.....	60, 024, 558	12.0	34, 222, 819	8.8	7, 343, 028	.9	570, 199	.1	284, 342	.....
Exports.....	141, 020, 661	14.4	79, 997, 994	11.4	7, 343, 028	.9	570, 199	.1	284, 342	.....
Total.....	6, 739, 236	1.4	2, 915, 649	.9	343, 146	.1	16, 404	.....	9, 453	.....
Austria-Hungary—										
Imports.....	3, 364, 051	1.7	1, 533, 270	.4	343, 146	.....	16, 404	.....	9, 453	.....
Exports.....	10, 103, 287	1.0	4, 448, 919	.6	343, 146	.....	16, 404	.....	9, 453	.....
Total.....	804, 148	.....	561, 994	.....	1, 008, 236	.....	1, 541, 320	.....	3, 601, 596	.....
Latin American countries:										
Chile—										
Imports.....	2, 015, 275	.4	1, 272, 815	.3	1, 741, 983	.3	1, 569, 774	.3	4, 212, 216	.8
Exports.....	2, 819, 423	.3	1, 834, 809	.3	2, 790, 219	.3	3, 111, 094	.3	7, 813, 812	.9
Total.....	1, 525	.....	1, 390, 090	.4	1, 663	.....	451, 144	.....	1, 242, 060	.....
Peru—										
Imports.....	5, 207	.....	1, 390, 090	.....	274, 124	.....	285, 307	.....	1, 527, 367	.....
Exports.....	6, 732	.....	1, 390, 090	.....	275, 787	.....	451, 144	.....	1, 527, 367	.....
Total.....	286, 250	.....	305, 437	.....	467, 459	.....	711, 085	.....	816, 391	.....
Bolivia—										
Imports.....	1, 172, 795	.2	850, 510	.1	522, 674	.1	861, 072	.2	660, 294	.1
Exports.....	1, 459, 045	.1	1, 155, 947	.2	990, 133	.1	1, 573, 157	.2	1, 476, 685	.2

¹ Source: El Comercio Exterior Argentino, Boletín 176, pp. 25-33.

THE EFFECT OF THE WAR ON THE TRADE WITH THE PRINCIPAL NATIONS, 1913-1917—Continued.

[Real values. Values converted to United States currency at \$0.965.]

Countries.	1913		1914		1915		1916		1917	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
Latin American countries—Continued.										
Uruguay—										
Imports.....	\$3,630,460	.8	\$3,355,406	1.1	\$2,441,469	.8	\$3,985,942	1.1	\$6,733,199	1.8
Exports.....	6,529,972	1.3	5,283,536	1.4	8,009,035	1.4	6,604,833	1.2	10,313,941	1.9
Total.....	10,160,462	1.0	8,608,942	1.2	10,450,504	1.2	10,600,825	1.2	17,047,140	1.9
Brazil—										
Imports.....	10,516,625	2.2	10,632,607	3.5	13,484,428	4.8	19,334,449	3.6	36,549,985	10.0
Exports.....	25,194,208	5.0	17,492,203	4.5	22,047,521	3.9	24,941,031	4.5	22,021,772	4.1
Total.....	35,710,833	3.6	28,124,810	4.0	35,531,949	4.1	44,275,480	4.9	58,571,757	6.5
Paraguay—										
Imports.....	2,579,567	.5	2,048,048	.7	2,935,345	1.0	3,360,374	1.0	5,031,341	1.4
Exports.....	1,973,121	.4	1,353,619	.3	1,560,388	.3	3,041,737	.6	3,242,274	.6
Total.....	4,552,688	.5	3,401,667	.5	4,495,731	.5	6,402,111	.7	8,273,615	.9
Cuba—										
Imports.....	1,279,663	.3	1,162,361	.4	1,131,573	.4	2,149,985	.6	2,590,445	.7
Exports.....	661,468	.1	377,723	.1	228,576	.1	76,232	.0	71,013	.0
Total.....	1,941,131	.2	1,540,084	.2	1,360,149	.2	2,226,237	.2	2,661,458	.3
Mexico—										
Imports.....	1,537,636	.3	2,049,352	.7	19,637,132	6.7	10,595,362	3.0	5,890,421	1.6
Exports.....	122,239	.0	152,476	.0	138,513	.0	30,849	.0	71,013	.0
Total.....	1,659,875	.2	2,201,828	.3	19,775,645	2.3	10,626,211	1.2	5,890,421	.7
SUMMARY.										
United States and Allies:										
Imports.....	331,348,377	69.2	217,259,891	69.7	209,438,889	71.2	266,119,799	75.2	264,328,306	71.9
Exports.....	242,911,091	48.4	213,174,893	34.8	343,297,505	56.2	374,756,968	67.7	410,807,893	77.4
Total.....	574,259,468	58.6	430,434,784	61.5	552,736,394	64.6	640,876,767	70.6	675,136,899	75.2
Neutrals:										
Imports.....	28,171,064	5.8	18,711,636	5.9	24,551,702	8.7	34,207,884	9.7	35,335,455	9.6
Exports.....	31,431,155	6.3	19,888,126	5.1	35,560,344	6.4	57,535,161	10.5	30,099,528	6.7
Total.....	59,602,219	6.0	38,599,762	5.4	60,112,046	7.0	91,743,045	10.2	65,434,983	7.2
Central Powers:										
Imports.....	87,735,339	18.3	48,690,824	15.7	7,686,174	4.6	586,603	.2	293,795	.1
Exports.....	63,388,609	13.4	35,766,089	9.2	7,686,174	0.9	586,603	.1	293,795	.0
Total.....	151,123,948	15.4	84,446,913	12.0	15,372,348	1.5	587,206	.0	293,795	.0

TRADE WITH CERTAIN COUNTRIES.

MEDITERRANEAN COUNTRIES.

In 1913 Italy held fifth place, in 1915 third place, and in 1917 fourth place in the list of Argentina's customers. This prominent position is due primarily to the number of Italians who have come to live in Argentina. Since 1860 Italy has sent 2,250,000 emigrants, and in 1913, 114,252 Italians entered the Republic. These numbers are surpassed only by the figures of Spanish immigration. Italians comprise 10 to 15 per cent of the population of Buenos Aires. These settlers not only do business within the Republic on behalf of the mother country, but their demands for home products and needs for adequate shipping facilities stimulate trade with Italy. The same conditions assist in developing the Spanish and French trade.

Italy imports substantial quantities of Argentine maize, linseed, oats, wool, and hides. Its exports to Argentina of textile and steel products are shown in the table on pages 95 and 96. Other commodities supplied by Italy are as follows:

ARGENTINE IMPORTS FROM ITALY, 1913.

Commodities.	Total imports into Argentina.		Per cent from Italy.
	Gold pesos.	U. S. currency.	
Olive oil.....	4,304,094	\$4,153,451	62.0
Wines.....	3,520,546	3,397,327	37.0
Cleaned rice.....	3,431,570	3,311,465	50.0
Vermouth.....	3,363,600	3,245,874	74.3
Cheese.....	2,018,016	1,947,385	74.5
Patent medicines.....	1,994,524	1,924,716	14.3
Watches.....	1,821,701	1,757,941	11.7
Cigars.....	1,215,266	1,172,732	70.6

These imports are demanded by the Italians living in Argentina.

The Spanish trade, although less important, is similar to the Italian and depends primarily upon the requirements of the Spaniards living in Argentina for native products. In 1913 Spain exported principally olive oil, ordinary wine, cleaned rice, sardines, and printed books. During the war it increased its shipments of textile materials, rice, and wines.

Before the war France held fourth place in Argentine trade, maintained this position in 1915, and in 1917 held third. The trade is similar to that of Italy. Special imports from France were as follows:

ARGENTINE IMPORTS FROM FRANCE, 1913.

Commodities.	Total imports into Argentina.		Per cent from France.
	Gold pesos.	U. S. currency.	
Automobiles.....	5,382,604	\$5,194,213	36.8
Silk cloth.....	2,852,401	2,752,567	56.8
Patent medicines.....	1,994,524	1,924,716	56.1
Perfumery.....	1,283,783	1,238,851	76.6

France exports few steel products. Its textile exports were fairly well maintained during the first two years of the war.

COUNTRIES OF NORTHWESTERN EUROPE.

The value of trade with these countries in 1913 is shown in the following table:

ARGENTINE TRADE WITH NORTHWESTERN EUROPE, 1913 AND 1915.

Countries.	1913		1915	
	Gold pesos.	U. S. currency.	Gold pesos.	U. S. currency.
Belgium.....	54,685,779	\$52,771,777	853,746	\$823,865
Netherlands.....	26,697,877	25,763,451	20,812,554	20,084,115
Sweden.....	4,197,865	4,050,940	7,083,051	6,835,144
Norway.....	3,339,455	3,222,574	4,165,070	4,019,233
Denmark.....	936,907	904,115	2,154,507	2,079,099

These countries import mostly grains. Belgium sends textiles and steel products, as shown in the table on pages 95 and 96. Much of the cement for Argentine construction came from the same source. The Netherlands sends cheese and also reexports rice and tobacco received from the East Indies. The Scandinavian countries ship fish and news print paper.

OTHER LATIN AMERICAN COUNTRIES.

A large volume of trade is carried on with the neighbors of Argentina. The following values show that the war has increased this business:

ARGENTINE TRADE WITH CHILE, PARAGUAY, URUGUAY, BOLIVIA, AND BRAZIL.

[United States currency.]

Countries.	1913	1915	1917
Brazil.....	\$35,710,833	\$35,531,949	\$58,571,757
Uruguay.....	10,160,462	10,450,504	17,047,140
Paraguay.....	4,552,688	4,495,731	8,274,115
Chile.....	2,819,423	2,750,219	7,813,812
Bolivia.....	1,459,045	990,133	1,476,685

Among the most important commodities of export were live animals, especially to Uruguay and Chile. They were purchased to improve the stock in these regions. On the other hand, cattle on the hoof were sent in from Paraguay, Uruguay, and Bolivia, because the large Argentine meat-packing establishments desired these products. In 1915 the value of cattle imported from these three countries approximated \$900,000. Argentina sold to its neighbors the same year \$3,000,000 worth of cattle.

Brazil does the biggest business with Argentina. Both are progressive countries, but in different climates. This explains the large volume of trade. Argentina in 1915 exported to Brazil wheat worth

\$15,000,000 and flour worth \$5,000,000. These two items represented over 95 per cent of the exports to Brazil. Argentina purchased goods worth \$13,000,000, including coffee, \$1,800,000; yerba mate, \$5,000,000; and tobacco, \$1,500,000.

The trade with Chile is insignificant because the nitrates are not required in Argentina, and the surplus products of the latter country are raised in Chile. Flour and hay are the principal Argentine exports, while animals, fruits, vegetables, wines, and malt are returned. Paraguay sends animals and yerba mate. Uruguay receives food products and sends back pastoral commodities and practically all the sand imported for building purposes.

Trade with Mexico increased from \$1,500,000 in 1913 to \$18,000,000 in 1915, because the Mexican oil fields supplied fuel to Argentina.

IMPORTS OF NAPHTHA FROM MEXICO AND THE UNITED STATES.

Commodity.	1913		1915	
	Mexico.	United States.	Mexico.	United States.
Naphtha.....	<i>Per cent.</i> 11.1.	<i>Per cent.</i> 85.6	<i>Per cent.</i> 58.8	<i>Per cent.</i> 41.0
Total imports.....	\$11,931,840		\$25,602,407	

In 1916 and 1917 this trade was limited and Mexican imports fell to normal.

Cuba increased its trade slightly during the war. Its imports, which are small, consist chiefly of corn (which forms about 97 per cent of the total from Argentina). Cuba exported about \$2,500,000 worth of goods to Argentina in 1915, and tobacco (\$800,000) was the principal item. It exports practically no sugar to Argentina.

JAPAN AND BRITISH POSSESSIONS.

Japan is expecting increased trade in Argentina. From 1,004,330 gold pesos in 1913 it advanced to 5,239,806 pesos in 1917. Sixty per cent of this trade is on the import side and consists principally of silks and rice. Better shipping facilities and the opening of a branch of the Yokohama Specie Bank in Buenos Aires in 1918 are factors which will strengthen this trade.

British possessions sent in 55 per cent of the burlap purchase of \$12,000,000 in 1915. This is employed for bagging. They also are taking over some of the import trade in rice, and in 1915 sold to Argentina almost 50 per cent of the \$800,000 tea purchase.

UNITED KINGDOM.¹

In the pre-war years 1912 and 1913 the percentages of Argentina's trade with the United Kingdom compared with Argentina's total trade are as follows:

Years.	Imports.	Exports.	Total.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1912.....	30.9	25.3	27.8
1913.....	31.1	24.1	27.7

¹All tables in this section are derived from "Argentine International Trade," Argentine Department of Agriculture. The values are all "nominal values," which explains the differences between the figures in this section and those in the table on p. 98.

The following figures are those of the war years:

Years.	Imports.	Exports.	Total.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1914.....	34.0	29.3	31.4
1915.....	35.6	24.4	29.7
1916.....	28.2	29.4	28.9
1917.....	21.8	29.2	26.2

The persistence of the English trade is caused by two economic conditions, viz, England's lack of cereal and meat supplies and its possession of surplus capital. As shown in Chapter IX, the British are greatly responsible for Argentine development, because of capital invested in the railways. Interest and dividends on these and other investments pay for part of the imports into the United Kingdom. The British exports also tend to increase, as is indicated by the heavy shipments of railway supplies.¹ These conditions, together with profits from investments, facilitate international payments, and the ease of making exchange reacts upon and increases trade.

The British imports of Argentina products show a high value in both grain and meat commodities, but, absolutely and relatively, the meat imports were the more important during the war years.

Products.	Value of imports into United Kingdom from Argentina.			Percentage of total exported from Argentina.		
	1913	1915	1917	1913	1915	1917
Grains (including wheat, maize, oats, and linseed).....	\$107,768,817	\$50,568,984	\$18,406,045	37.1	17.1	15.5
Meat products (including frozen beef, mutton, extracts, preserved meats, and butter).....	41,914,644	70,610,881	96,156,809	96.5	82.9	70.6

These figures show the relative decrease in each group caused by the war. Greater participation in the trade of the mother country on the part of British colonies, especially Canada and Australia, probably explains the reduction. A more interesting feature, however, is the relatively unimportant part played by England in the grain exports of Argentina when compared with the high percentage of its meat imports. This situation is probably dependent upon one or more of the following conditions. Several of the nations of Europe require wheat, and purchase it in exchange for commodities sold Argentina. Thus the wheat crop is well distributed. In 1913 the United Kingdom received 37.1 per cent; Germany, 19.4 per cent; Belgium, 6.3 per cent; and Italy, 4.4 per cent. When it comes to the disposal of the meat supply, these other nations do not participate to such an extent, because of small per capita consumption. In former years Great Britain purchased much beef from the United States. With the lessening of this supply few sources are left except Argentina, and it is probable that the trade with this country will continue to increase. Many American packers who formerly did business with the British have established branches in Argentina

¹ See p. 96.

and will probably maintain their European connections, sending large amounts directly from that base. The entrance of American capital into the industry accounts for the increased output in recent years and also for the British reduction from 96.5 per cent to 70.6 per cent. The United States received a negligible quantity of beef in 1913, and 11 per cent of Argentina's exports of beef in 1915.

Minor exports of value to Great Britain are hides, wool, and quebracho extract.

During the later years of the war the British imports into Argentina show a decrease. This is due to a war condition and does not indicate a lessening hold in the Argentine market. A vital factor in many lines, Great Britain practically monopolizes the trade in several commodities. The figures in the table on pages 95 and 96 show imports in 1913 and 1915 of textile and iron and steel products. The increase in the percentages of many of these commodities is due to the absorption of the lost German trade.

Besides the place held in the groups mentioned above, the United Kingdom makes heavy shipments of coal. In 1913 the imports were valued at \$28,000,000, and the United Kingdom furnished 98.3 per cent. In 1915 this was reduced to 72 per cent, and that of the United States became 25.6 per cent. As long as the English and Welsh coal supply remains abundant and ships are required to bring back Argentine products, a large per cent of Argentina's coal supply will be furnished by the United Kingdom.

UNITED STATES.

Argentina's trade with the United States during the three years preceding the war was surpassed by that of the United Kingdom, Germany, and France. During these years it varied little in value and showed a decided balance against Argentina.

PRE-WAR TRADE WITH THE UNITED STATES, 1911-1913.

[United States currency.]

Years.	Imports from United States.	Exports to United States.	Total trade with United States.	Balance against Argentina.
1911.....	\$56,515,107	\$24,685,655	\$81,200,762	\$31,828,452
1912.....	66,242,864	32,632,786	98,875,650	33,610,096
1913.....	70,457,225	23,728,409	94,185,634	46,728,816

During the four years of the war, not only did this trade increase until the United States reached first place, but the balance changed in favor of Argentina. (See graph No. 19.)

WAR TRADE WITH THE UNITED STATES, 1914-1917.

Years.	Imports from United States.	Exports to United States.	Total trade with United States.	Balance in favor of Argentina.
1914.....	\$41,984,982	\$47,737,114	\$89,722,096	\$5,752,132
1915.....	72,944,239	90,426,362	163,370,601	17,482,123
1916.....	103,243,910	115,539,590	218,783,500	12,295,680
1917.....	133,251,948	155,626,287	288,878,235	22,374,339

COMPARISON OF THE EXPORTS OF THE PRINCIPAL COMMODITIES TO THE UNITED STATES AND THE UNITED KINGDOM, 1912, 1915, AND 1917.

Principal commodities.	Value of total exports (gold pesos).			Percentage of exports— ¹					
				United States.			United Kingdom.		
	1912	1915	1917	1912	1915	1917	1912	1915	1917
Wheat.....	\$97,835,174	\$132,632,673	\$60,632,191	.....	1	.....	37	15	15
Maize.....	108,908,193	93,475,450	39,262,221	.....	2	5	52	17	20
Oats.....	21,858,517	19,065,704	10,589,801	.....	.....	.....	42	40	3
Linseed.....	34,285,076	46,100,866	12,928,966	10	25	50	16	21	12
Quebracho extract.....	4,836,860	15,873,372	14,140,210	32	12	33	12	66	23
Beef (frozen and chilled).....	34,285,076	78,351,614	86,256,995	.....	11	.....	96	82	72
Mutton (frozen and chilled).....	5,613,971	6,306,263	7,834,100	.....	17	.....	99	83	80
Preserved meat.....	1,769,882	11,244,288	36,681,451	.....	.....	5	98	87	72
Dry oxhides.....	17,285,501	15,290,278	14,869,644	58	73	67	3	.....	2
Salt oxhides.....	24,844,075	27,482,588	40,538,214	34	70	50	18	17	30
Wool.....	58,148,664	55,579,000	101,300,020	10	44	70	15	14	7
Total value of all exports.....	501,667,369	582,179,279	550,170,049	.....	.....	.....	.....	.....	.....

¹ Where no per cent is indicated the exports are less than 1 per cent.

IMPORTS FROM THE UNITED STATES.

The following table shows the principal imports from the United States. Some of these were important before the war and have continued so; others have gained prominence due to abnormal conditions; while trade in some commodities has fallen off.

PRINCIPAL IMPORTS FROM THE UNITED STATES.¹

Commodities.	1913	1914	1915	1916	1917	1918
Agricultural implements, and parts of:						
Hay rakes and tedders.....	\$29,011	\$78,202	\$2,649	\$48,295	\$16,123	\$36,306
Mowers and reapers.....	1,650,688	1,102,499	412,289	770,436	347,271	349,668
Planters and seeders.....	323,164	309,349	119,953	85,688	123,336	100,770
Plows and cultivators.....	1,755,705	1,420,748	666,613	1,437,763	1,032,960	890,006
Thrashers.....	1,318,397	689,750	191,596	143,822	67,921	87,255
All other, and parts of.....	1,346,554	744,338	348,506	916,195	979,630	1,045,109
Total.....	6,423,519	4,344,886	1,741,606	3,402,199	2,567,241	2,509,114
Automobiles, and parts.....	1,333,873	1,121,444	347,029	2,321,139	3,940,367	5,805,556
Bagging.....	75,982	59,752	206,080	160,081	99,306	21,463
Binder twine.....	1,928,006	1,200,590	264,140	1,890,357	911,429	3,266,790
Cars, for railways.....	2,002,422	476,919	160,865	50,886	38,054	7,310
Cement, hydraulic.....	84,698	62,787	218,042	82,012	200,481	402,442
Coal and coke.....	113,584	401,810	1,714,928	2,402,212	2,842,781	1,459,582
Cotton cloth:						
Duck.....	.....	.....	.....	.....	256,025	557,993
All other cotton cloth—						
Unbleached.....	167,268	144,844	178,179	578,663	337,097	472,908
Bleached.....	3,313	4,310	11,612	225,716	652,848	1,200,969
Colored—						
Printed.....	.....	.....	7,318	204,291	512,117	1,334,116
Dyed in piece.....	9,419	8,516	4,569	135,290	252,048	3,434,798
Dyed in the yarn.....	.....	.....	2,457	457,205	2,215,378	3,046,479
Knit goods.....	30,907	67,472	169,572	1,686,512	1,657,979	2,926,772
Yarn.....	88,813	27,408	475,528	2,183,809	2,005,538	3,468,550
Electrical machinery and appliances.....	575,785	719,313	448,177	939,959	1,721,627	2,626,163
Tires, automobile.....	8,153	21,920	34,096	488,329	1,301,344	1,649,840
Machinery:						
Pumps and pumping machinery.....	182,780	270,693	66,967	220,401	155,843	297,168
Sewing machines.....	880,141	962,682	126,064	253,866	228,937	341,976
Typewriting machines.....	355,320	300,711	110,638	170,987	238,852	246,515
Windmills.....	558,146	668,002	259,208	581,053	386,139	590,123
Malt.....	.....	.....	400,331	671,132	224,021	171,580
Railway track material.....	780,114	987,302	166,856	211,985	20,890	38,648

¹ Source: United States Statistics, fiscal years 1913-1918.

PRINCIPAL IMPORTS FROM THE UNITED STATES—Continued.

Commodities.	1913	1914	1915	1916	1917	1918
Sheets and plates.....	944,511	699,336	639,187	1,056,239	1,309,128	2,669,564
Tin plate, terne plate, and tagger's tin.	247,646	94,232	492,941	1,519,110	2,954,310	7,811,659
Tobacco.....	429,597	442,004	343,268	262,228	831,798	341,006
Wire, and manufactures of.....	1,354,741	738,850	1,180,948	3,305,790	3,723,669	3,688,047
Leather.....	1,845,813	983,874	637,775	1,482,379	1,393,865	1,096,735
Boots and shoes.....	651,432	881,887	566,054	797,683	708,350	314,297
Oils:						
Crude.....	324,558	593,594	316,864	419,373	542,012	276,609
Refined or manufactured—						
Fuel oil and gas oil.....	35,485	102,442	11,324	159,358	253,865	98,334
Illuminating oil.....	2,217,028	1,687,358	1,528,548	1,391,414	1,559,989	1,382,505
Lubricating.....	1,075,342	789,185	672,398	1,284,490	1,266,175	1,808,665
Naphtha, and light products of distillation, and residuum.	2,385,113	3,655,571	1,659,849	3,597,821	3,204,250	5,450,820
Total.....	6,037,526	6,828,060	4,188,983	6,852,455	682,129	9,016,933
Paper, news-print.....	709,010	447,908	806,217	1,039,360	1,178,937	1,983,472
Sugar, refined.....	1,645	2,417	739	238,089	5,705,771	6,483,692
Lumber:						
Oak.....	302,827	225,540	100,521	217,661	294,338	239,097
White pine.....	564,149	443,659	56,953	158,061	92,936	44,731
Yellow pine.....	4,187,234	3,348,137	1,037,777	1,218,790	638,105	851,905
Spruce.....	458,556	413,339	56,829	123,258	6,405	11,119
Furniture (not metal).....	778,404	770,215	187,979	192,965	356,180	91,043
Shooks.....	2,360,666	1,019,352	558,960	590,208	684,696	1,500,341

A glance at the figures for 1913 will give an idea of the principal commodities imported in pre-war years. The following table shows those imports which gained greatly in value during the war:

Imports.	From United States.		Country suffering greatest loss in trade.
	1913	1918	
Cotton cloth.....	\$180,000	\$10,047,264	Great Britain.
Knit goods (hosiery and underwear).....	30,907	2,926,772	Do.
Yarn.....	88,813	3,468,550	Do.
Coal.....	113,584	1,459,582	Do.
Automobiles and parts.....	1,333,873	5,805,556	France.
Oils.....	6,037,526	9,016,933	Mexico.
Sugar.....	836	6,483,692	Germany.
Paper.....	709,010	1,983,472	Do.
Cement.....	84,698	402,442	Belgium.

With the exception of coal, automobiles, and oils, much of this trade will probably return to those formerly controlling it. The increased American merchant marine may find coal as advantageous for cargoes as did the British before the war. The cheap, light, American automobiles have won a reputation in rural Argentina and will be purchased in increasing numbers. Oils, especially naphtha, come almost entirely from the United States.

Many commodities, such as agricultural machinery, railway cars, steel rails, electrical machinery, special machinery, wire, leather goods, and lumber from the United States, have decreased in value. This follows the general decline in the total of Argentine imports, caused by limited shipping facilities, and with the restoration of normal conditions the sales from the United States will resume their former value. The United States has a control, almost monopolistic, over several imports into Argentina.

IMPORTS FROM THE UNITED STATES IN 1913 AND 1915 OF COMMODITIES VALUED AT MORE THAN \$1,000,000 IN 1913.

Commodities.	Percent- age, 1913.	Percent- age, 1915.	Commodities.	Percent- age, 1913.	Percent- age, 1915.
Naphtha (impure).....	85.6	41.0	White pine.....	75.2	35.6
Lubricating oils.....	58.8	80.6	Sisal twine.....	92.2	99.0
Kerosene.....	99.9	99.9	Thrashing machines.....	63.1	60.0
Cotton oil.....	99.0	99.2	Sewing machines.....	59.2	.....
Pitch pine.....	98.9	98.5	News-print paper.....	35.9	57.0
Spruce.....	50.6	31.3			

In many of these commodities the United States will continue to contribute the greater part of the imports. Among such products should be mentioned naphtha, kerosene, lumber, agricultural machinery, sewing machines, and typewriters.

EXPORTS TO THE UNITED STATES.

A study of pre-war figures from the Argentine official statistics shows that the United States received 6.7 per cent of the Argentine exports in 1912. The values and nature of these commodities are shown in the following table:

 PRINCIPAL EXPORTS TO THE UNITED STATES, 1912.¹

[United States currency.]

Commodities.	To United States.	To all countries.	Percent to United States.
Dried cowhides.....	\$9,667,799	\$16,680,509	58.0
Salted cowhides.....	8,106,870	23,974,532	30.0
Wool (unwashed).....	5,707,865	56,113,461	10.1
Flax.....	1,646,815	33,016,090	5.0
Quebracho extract.....	1,522,146	4,667,570	32.6
All others.....	4,605,960	329,125,400	1.4
Total.....	31,257,455	463,577,562	6.7

¹Source: Anuario de Estadística, 1912.

During the war changes took place in the export trade to the United States. These are shown in the following table:

 PRINCIPAL EXPORTS TO THE UNITED STATES DURING THE WAR YEARS.¹

[United States fiscal years.]

Commodities.	1913	1914	1915	1916	1917	1918
Wool.....		\$7,254,334	\$18,220,308	\$35,998,752	\$75,119,656	\$104,220,950
Hides (cattle):						
Dry.....	\$6,081,887	6,311,746	5,611,841	7,374,675	10,721,194	5,210,959
Green or pickled.....	6,435,700	9,853,930	15,494,034	23,132,608	21,770,672	22,216,934
Total.....	12,517,587	16,165,676	21,105,875	30,507,283	32,491,866	27,427,893
Linseed.....	702,000		4,403,987	14,935,543	7,309,161	16,838,818

¹Source: United States report, Commerce and Navigation.

PRINCIPAL EXPORTS TO THE UNITED STATES DURING THE WAR YEARS—Contd.

Commodities.	1913	1914	1915	1916	1917	1918
Meats:						
Beef and veal.....		\$5,196,951	\$12,064,195	\$5,240,834	\$203,331	\$57,146
Mutton and lamb.....		447,193	1,097,846	1,682,480	436,473	157,018
Total.....		5,644,144	13,162,041	6,923,314	639,804	214,164
Skins:						
Sheep.....	\$776,969	522,626	1,145,655	2,073,389	6,155,560	4,594,541
Goat.....	1,457,242	1,190,166	1,078,677	2,073,956	3,767,722	1,761,749
Total.....	2,234,211	1,712,792	2,224,332	4,147,345	9,923,282	6,356,290
Quebracho:						
Extract.....	1,895,736	2,441,083	3,624,632	5,432,468	5,198,667	4,660,250
Wood.....	1,299,995	899,603	703,882	1,598,465	1,180,447	718,567
Total.....	3,195,731	3,340,686	4,328,514	7,030,933	6,379,114	5,378,817
Corn.....	476,286	7,351,336	4,475,075	2,543,053	1,381,709	2,395,365

The increase in wool exports to the United States is remarkable, being an increase from \$5,000,000 to \$75,000,000 worth in four years. The explanation is found in the large supply required by this country for military purposes and in the fact that the United States tended to obtain a larger proportion from Argentina than from British sources, owing to the requirements of Great Britain for wool for its army.

The increase in the meat exports is explained in part by the growing control of American packers in the Argentine meat industry. The decrease in the last two years may be accounted for by an arrangement between England and the United States to ship meats direct to Europe. The linseed increase is due to excessive war needs.

Normally the trade is not evenly distributed throughout the months of the year, as shown in the following figures for the calendar year 1913:

TRADE WITH UNITED STATES DURING THE CALENDAR YEAR 1913.

Months.	Imports.	Exports.	Total.
January.....	\$4,783,189	\$3,272,237	\$8,055,426
February.....	3,761,723	2,199,366	5,961,089
March.....	4,697,650	2,553,665	7,251,315
April.....	4,136,056	2,221,202	6,357,258
May.....	5,345,050	1,035,871	6,380,921
June.....	3,467,227	1,038,871	4,506,098
July.....	4,478,932	963,246	5,342,178
August.....	5,139,818	1,270,624	6,410,442
September.....	5,151,071	1,954,880	7,105,951
October.....	5,168,450	1,244,372	6,409,822
November.....	4,113,394	3,251,909	7,365,303
December.....	4,737,855	4,569,424	9,307,279
Total.....	54,980,415	25,575,667	80,556,082

The imports average about \$4,000,000 each month, but the exports vary, ranging from \$963,246 in July to \$4,569,424 in December. This difference between the import and export figures would be even greater if tonnage statistics were given, for the exports are heavy, while the imports are of lesser bulk. This condition results in a lack of equilibrium in shipping facilities.

GERMANY.

In 1913 Germany held second place in Argentine trade, doing about one-half as much business as Great Britain, exporting 48 per cent as much and importing 55 per cent of the British values.

PRINCIPAL GERMAN PURCHASES OF ARGENTINE PRODUCTS, 1913.

Commodities.	Total Argentine exports.		Percentage sent to Germany.
	Gold pesos.	U. S. currency.	
Maize.....	112,292,394	\$108,362,160	19.4
Wheat.....	102,631,143	99,039,053	20.4
Linseed.....	49,910,201	48,163,344	35.2
Wool.....	45,270,016	43,685,565	33.1
Salted hides.....	24,543,795	23,684,762	46.1
Bran.....	4,740,184	4,574,278	72.3

In the majority of cases this trade seems to have been generally distributed, but there is evidence of direct transfer in certain commodities.

TRANSFER OF TRADE.

Countries of destination.	Wool.		Linseed.	
	1913	1915	1913	1915
Germany.....	<i>Per cent.</i> 33.1	<i>Per cent.</i> 0.0	<i>Per cent.</i> 35.2	<i>Per cent.</i> 0.0
United States.....	7.4	44.1	10.2	25.7

Germany sold many commodities to Argentina before the war, and the table on pages 95 and 96 reveals the important rôle played in the textile and steel imports. Most of the lost trade in textiles went to England, while the business in steel products was transferred to the United States. In electrical machinery, and other apparatus requiring technical accuracy and skill, the Germans dominated, not only because of the accuracy of German workmanship, but on account of their heavy investments in Argentine municipal electrical power and lighting companies.

Other imports from Germany not listed in the above-mentioned table were as follows:

ARGENTINE IMPORTS FROM GERMANY, 1913.

Commodities.	Total imports into Argentina.		Percentage from Germany.
	Gold pesos.	U. S. currency.	
Automobiles.....	5,382,604	\$5,194,213	16.3
Sugar, refined.....	3,991,385	3,851,687	31.3
Sugar, unrefined.....	1,529,367	1,475,839	99.9
Household utensils.....	1,477,148	1,425,448	57.9
Pianos.....	1,293,020	1,247,764	79.9
Paper for printed matter.....	1,256,255	1,212,286	82.9
Dynamos and electric motors.....	1,127,491	1,088,029	45.1
Copper manufactures.....	1,118,170	1,079,034	35.9
Tramway material.....	1,091,550	1,053,346	56.1
Glassware.....	1,018,210	982,573	41.5

IX. FINANCE.

PRESENT FAVORABLE CONDITIONS.

Financially Argentina is probably stronger to-day than at the opening of the war. Several years of poor crops and overextension of credit had worked havoc with the national finances and the operations of the banks. These institutions were working normally when the war began, but fear of the future again hampered them. However, the increased local trade during the war years assisted banking business, and the future offers continued prosperity, especially if there is a greater centralized control preventing overextension of credit and other risky banking operations. The increased domestic trade has demanded a larger circulation of paper money. Practically no gold came into the country to provide an adequate reserve for this increase. Here was a danger. Deposits of gold by debtor nations in Argentine legations abroad prevented disaster.

THE MONETARY SYSTEM.

The monetary system of Argentina is theoretically on a gold monometallic basis, the unit of value being the gold peso. Like the gold dollar of the United States, the gold peso is a unit of value only and is not coined. It is nine-tenths fine and weighs 1.6129 grams. There are only two gold coins provided for by the monetary law of the country, namely, the argentina, or 5-peso piece, and the half argentina, or 2½-peso piece. The silver peso contains 25 grams of silver nine-tenths fine. One peso equals 100 centavos. In addition to the silver peso, there are 50-centavo, 20-centavo, and 10-centavo silver coins. There are also some nickel and copper coins, as noted in the table given below, which, in addition to enumerating the various kinds of metallic money coined, shows their values as coins in United States money and also the amounts for which they are legal tender:

Coins.	Value in U. S. money.
Gold coins—full legal tender:	
Argentina.....	\$4.8236
½ argentina.....	2.4118
Silver coins—legal tender up to 10 pesos:	
Peso.....	.9648
50 centavos.....	.4824
20 centavos.....	.1929
10 centavos.....	.0964
Minor coins—legal tender up to 1 peso:	
20 centavos (nickel).....	.1929
10 centavos (nickel).....	.0964
5 centavos (nickel).....	.0482
2 centavos (copper).....	.0192
1 centavo (copper).....	.0096

The money in circulation is principally paper. Prior to 1899 there was no actual gold fund set aside for the redemption of the paper money. The result was that the value of the currency was contin-

ually fluctuating. This situation was especially undesirable in matters involving foreign exchange. The quotations for foreign exchange were based on the gold peso, and since the paper peso was not readily convertible into gold, any depreciation in the paper peso adversely affected the rates of foreign exchange. For the purpose of stabilizing the value of the currency, Argentina in 1899 established the Office of Conversion. This office receives gold on deposit and issues in exchange demand notes at the rate of 227.27 pesos paper for every 100 pesos of gold. The office also exchanges gold pesos for paper pesos at the same rate; that is, for every 100 pesos of paper money received it will issue 44 pesos gold. In addition to the gold held by the Office of Conversion, the Government established a special fund, known as the conversion fund, which was kept in the Bank of the Argentine Nation. This fund was intended to be increased until it reached 128,000,000 pesos gold, the sum necessary to secure all the paper money outstanding at the time the act was passed in 1899 at the rate of 44 centavos gold for every peso paper. This fund had increased to 30,000,000 pesos by 1910 and remained at this figure until 1914. The outbreak of the European war forced the Government to pass some measures to meet the financial situation created by the war. On August 9, 1914, the directorate of the Bank of the Argentine Nation was authorized to convert and mobilize the conversion fund as it deemed expedient. This explains why in the table given on page 114, the figures for the conversion fund are discontinued after 1913. However, there remained in this fund from 1914 through 1918 the sum of 10,000,000 pesos gold. If this amount is added to the figures given in the table for the total amount of gold securing the paper money of the country, the ratio of gold to paper is increased about 2 or 3 per cent for the years 1914 to 1918, inclusive.¹ The other 20,000,000 pesos were taken to the Office of Conversion and exchanged for 45,454,545.45 pesos paper.² Another law, passed on August 9, 1914, authorized various Argentine legations abroad to receive gold which under normal conditions would have been shipped to Argentina. This law was the result of the action taken by various nations prohibiting the shipment of gold. As the balance of trade was in favor of Argentina during the war, considerable quantities of gold came into the hands of the legations at Stockholm, London, Washington, Paris, and Rome. The law authorizing the legations to receive this gold also provided that the Treasury Department should give to the Office of Conversion certificates for the amount of gold thus deposited in the legations, and the Office of Conversion in turn was empowered to issue to the Bank of the Argentine Nation paper money equivalent to this gold. Thus back of the paper money authorized to be issued by this law are the certificates in the Office of Conversion which represent the gold deposited with the Argentine legations. This plan permitted Argentine creditors to receive payments, although the balance of trade remained very much in favor of Argentina, and the foreign debtors were unable to ship gold.

¹ Ratio of gold to paper: 1914, 66.3 per cent; 1915, 72.6 per cent; 1916, 73.3 per cent; 1917, 73.3 per cent; 1918 (Nov. 30), 76.6 per cent.

² See Memoria del Departamento de Hacienda, 1916, p. 118.

The table following shows the amount of paper money outstanding, its value in gold pesos converted at the rate of 44 centavos of gold for every peso of paper, and the amount of gold which secures it. It will be noted that although the ratio of gold in the Office of Conversion to the gold value of the paper money in circulation decreased during the war, nevertheless if the gold deposited in the Argentine legations be added the ratio on November 30, 1918, reached its highest point. As this gold will be eventually deposited in the Office of Conversion and as the increased issue of paper money was based on this gold deposited in the legations, it should be considered as part of the gold security for the paper money even although it was not immediately available. At this point it may be noted that on August 12, 1914, the export of gold during the period of the European war was prohibited, and on September 30 a law was passed suspending specie payments by the Office of Conversion; that is, delivery of gold for paper money was denied. Thus, so far as the holder of Argentine paper money was concerned, the gold in the Office of Conversion was no more available to him during the war than was the gold deposited with the legations. The so-called conversion fund in the Bank of the Argentine Nation has already been discussed. Although the official report of the Treasury Department ceased to include any sum under this heading after 1913, nevertheless some authorities include the 10,000,000 gold pesos of the fund which still remained in the bank as part of the gold back of the paper money in circulation.

RELATION EXISTING BETWEEN THE PAPER MONEY IN CIRCULATION AND THE AMOUNT OF GOLD SECURING IT.¹

Year, Dec. 31.	Paper money in circulation.	Gold equivalent of this paper money.	Gold in Office of Conversion.	Relation of amount of gold in Office of Conversion to gold value of paper money in circulation.	Conversion fund in the Bank of the Argentine Nation.	Gold held by Argentine legations.	Total gold securing paper money.	Relation of total gold reserve to paper money in circulation.
	<i>Paper pesos.</i>	<i>Gold pesos.</i>	<i>Gold pesos.</i>	<i>Per cent.</i>	<i>Gold pesos.</i>	<i>Gold pesos.</i>	<i>Gold pesos.</i>	<i>Per cent.</i>
1899....	291,342,489	128,190,695	1,463	(²)	142,464	.....	145,307	(²)
1900....	295,165,927	129,873,008	.....	22.9	488,627	.....	38,729,774	23.2
1901....	295,165,927	129,873,008	.....	28.1	5,210,540	.....	55,552,179	31.0
1902....	295,055,093	130,264,241	2,843	41.1	11,710,545	.....	101,862,594	46.5
1903....	380,179,957	167,279,181	38,241,147	44.3	16,808,743	.....	119,539,757	51.6
1904....	407,681,073	179,379,672	50,341,639	44.9	19,762,406	.....	124,876,278	53.3
1905....	498,158,176	219,189,597	90,152,049	49.5	25,000,000	.....	151,721,724	59.3
1906....	526,747,832	231,769,046	102,731,014	57.2	28,500,000	.....	201,019,898	66.7
1907....	532,163,415	234,151,902	105,113,872	59.2	30,000,000	.....	219,048,629	68.9
1908....	581,272,168	255,759,754	126,721,724	63.3	30,000,000	.....	252,875,531	71.9
1909....	685,358,924	301,557,926	172,519,898	64.4	30,000,000	.....	263,197,716	72.7
1910....	715,982,757	315,032,413	185,994,386	62.7	.....	2,695,093	224,405,298	63.5
1911....	722,924,214	318,086,654	189,048,629	54.6	.....	68,344,441	305,636,048	70.3
1912....	799,803,535	315,913,555	222,875,531	58.2	.....	56,514,374	316,835,326	71.1
1913....	823,263,045	362,235,740	233,197,716	58.7	.....	55,254,374	316,852,151	71.1
1914....	803,280,275	353,443,321	231,710,205	55.0	.....	99,567,193	379,032,643	74.6
1915....	987,645,615	434,564,071	227,291,607	.....	.....	.....	.....	.....
1916....	1,013,098,518	445,763,348	260,320,952	.....	.....	.....	.....	.....
1917....	1,013,130,756	445,780,173	261,597,777	.....	.....	.....	.....	.....
1918....	1,154,456,055	507,960,664	279,465,449	.....	.....	.....	.....	.....

¹ Sources: Memoria del Departamento de Hacienda, 1916, pp. 131-133; Memoria del Departamento de Hacienda, 1917, p. 203; Business Conditions in Argentina, Report No. 143, published by Ernesto Tornquist & Cia. Dec. 30, 1918, p. 14.

² Negligible.

³ By act 9479 of Aug. 4, 1914, the Bank of the Argentine Nation was authorized to convert and mobilize this conversion fund into any form that the directorate deemed expedient.

⁴ Nov. 30.

THE BANKING SITUATION.

The table following briefly summarizes the conditions of the principal banks in the Republic on March 31, 1919. In this list two types of banks are included, viz, domestic banks and foreign banks.

COMMERCIAL DOMESTIC BANKS.

With the exception of the Bank of the Argentine Nation, this group is composed of banks formed solely with Argentine private capital. Among the most important of such banks should be mentioned the following:

Banks.	Capitalization.	
	Paper pesos.	U. S. currency.
Banco Español.....	98, 416, 240	\$41, 826, 902
Banco de la Provincia de Buenos Aires.....	62, 500, 000	26, 562, 500
Banco de Italia y Rfo de la Plata.....	22, 727, 000	9, 658, 975
Banco Francés del Río de la Plata.....	31, 816, 000	13, 521, 800

There are other domestic banks of lesser importance in Buenos Aires with branches scattered throughout the Republic, and also many small local institutions. These Argentine banks specialize in handling the finance of the agricultural regions and other forms of domestic trade, while the group of foreign banks finance the foreign business of the country.

STATEMENT SHOWING THE POSITION OF THE BANKS ON MAR. 31, 1919, AS PUBLISHED BY THE ARGENTINE GOVERNMENT.¹

Banks.	Deposits.		Loans and discounts.	
	Gold pesos.	Paper pesos.	Gold pesos.	Paper pesos.
German Transatlantic.....	1, 067, 901	14, 950, 538	829, 632	10, 443, 638
Anglo South American.....	338, 652	29, 100, 412	498, 946	30, 774, 477
Argentine-Uruguayan.....		5, 174, 884		4, 681, 065
British of South America.....	557, 635	29, 341, 462	216, 479	19, 421, 160
Comercial del Azul.....		14, 094, 313		13, 022, 586
Italian Commercial.....	788, 631	13, 010, 298	55, 852	11, 366, 957
Spain and America.....		1, 017, 072		835, 623
Spanish and River Plate.....	587, 763	111, 680, 913	245, 652	109, 936, 446
French and River Plate.....	19, 897	19, 271, 974	561	13, 667, 646
French and Italian.....	39, 858	27, 405, 744	285, 075	13, 127, 921
Galicia and Buenos Aires.....	633	17, 169, 912		17, 568, 273
German and South American.....	339, 400	9, 493, 625	105, 909	7, 369, 015
Dutch and South American.....	10, 060	20, 241, 906		31, 595, 033
Italian and River Plate.....	952, 033	55, 342, 841	98, 850	57, 723, 708
Italo-Belge.....	41, 343	18, 531, 076		11, 273, 349
London and Brazilian.....	172, 057	9, 625, 962	730, 872	6, 491, 203
London and River Plate.....	1, 623, 955	74, 650, 462	258, 861	37, 532, 111
Bank of the Argentine Nation ²	3, 058, 492	499, 602, 902	4, 834	254, 887, 352
New Italian.....	107, 345	33, 692, 501	6, 886	27, 810, 088
Argentine Popular.....	158, 908	10, 419, 807	132, 151	14, 543, 261
Province of Buenos Aires ³	46, 883	120, 753, 125	47, 198	100, 672, 017
National City Bank of New York.....		25, 551, 237		30, 849, 068
First National Bank of Boston.....		22, 812, 819		18, 516, 466
Five banks with less than 1,000,000 pesos paper capital.....	298, 795	1, 126, 338		1, 524, 119
Total.....	10, 210, 241	1, 184, 062, 123	3, 517, 758	845, 632, 604

¹ Source: From Review of the River Plate, Apr. 25, 1919, p. 1009, as published by the Argentine Government.

² Including judicial deposits of 87,427 gold pesos and 33,382,960 paper pesos and cámara compensadora (clearing) of 464,104 gold pesos and 68,907,141 paper pesos.

³ Including judicial deposits of 1,684 gold pesos and 12,634,005 paper pesos.

STATEMENT SHOWING THE POSITION OF THE BANKS ON MAR. 31, 1919, AS PUBLISHED BY THE ARGENTINE GOVERNMENT—Continued.

Banks.	Cash.		Capital subscribed or corresponding to Argentine Republic.	
	Gold pesos.	Paper pesos.	Gold pesos.	Paper pesos.
German Transatlantic.....	1,260,465	7,032,761	3,522,250	.....
Anglo South American.....	123,771	10,269,187	.....	4,818,920
Argentine-Uruguayan.....	.....	1,266,744	.....	896,895
British of South America.....	2,833,348	7,602,108	4,377,240	.....
Comercial del Azul.....	.....	2,617,621	.....	510,000
Italian Commercial.....	179,885	3,841,691	.....	2,125,000
Spain and America.....	.....	454,024	.....	575,833
Spanish and River Plate.....	1,635,972	25,486,125	.....	41,882,008
French and River Plate.....	416,963	11,960,017	13,509,875	.....
French and Italian.....	47,061	14,650,413	2,412,500	.....
Galicia and Buenos Aries.....	805	3,980,224	.....	7,313,621
German and South American.....	291,740	2,895,344	1,668,487	.....
Dutch and South American.....	36,318	5,519,704	3,759,479	.....
Italian and River Plate.....	1,255,969	10,391,287	9,650,000	.....
Italo-Belge.....	52,007	6,779,731	965,000	.....
London and Brazilian.....	571,865	2,434,116	1,223,803	828,750
London and River Plate.....	4,815,629	31,373,079	4,101,250	.....
Bank of the Argentine Nation ¹	34,808,959	137,729,196	.....	56,285,839
New Italian.....	166,222	8,741,155	.....	2,125,000
Argentine Popular.....	471,069	2,583,510	.....	4,468,824
Province of Buenos Aires ²	2,905,646	42,625,916	.....	26,562,500
National City Bank of New York.....	3,367	5,612,934	.....	1,001,068
First National Bank of Boston.....	363,050	6,845,625	1,000,126	.....
Five banks with less than 1,000,000 pesos paper capital.....	.....	1,343,507	.....	2,049,575
Total.....	52,240,111	354,036,019	46,190,010	150,443,833

¹ Including judicial deposits of 87,427 gold pesos and 33,382,960 paper pesos and cámara compensadora (clearing) of 464,104 gold pesos and 68,907,141 paper pesos.

² Including judicial deposits of 1,684 gold pesos and 12,634,005 paper pesos.

BANK OF THE ARGENTINE NATION.

Following the panic of 1890, when the two semiofficial banks (the Provincial Bank and the National Bank) liquidated, a new State bank (the Banco de la Nación Argentina) was formed, with a capitalization of over \$21,000,000 (United States currency), for the purpose of transacting the business of the Government. On December 31, 1917, the capital amounted to nearly \$55,000,000 with a reserve fund of over \$14,500,000. Although managed independently of the Government, it carries on the latter's financing, and all net profits must go to increase the capital. It can not, however, loan to the Government in excess of 20 per cent of the capital of the bank. With more than 150 branches and agencies scattered throughout the Republic, its influence is tremendous. On account of its large dealings in foreign drafts this bank controls the exchange market to a large extent. The following statistics show the growth of the institution since 1905:

BANK OF THE ARGENTINE NATION AS OF DEC. 31, 1905-1917.¹

[In thousands of dollars, United States currency.]

Year.	Deposits.	Discounts, etc.	Cash.		Capital.	Reserve fund (gold).
			Gold.	Paper.		
1905.....	75,100	69,800	10,900	21,800	21,900	2,600
1906.....	73,100	73,800	9,000	22,800	22,800	3,500
1907.....	86,600	92,900	17,500	23,400	24,000	4,700
1908.....	104,600	106,000	21,900	28,800	46,800	6,300
1909.....	147,300	127,100	33,700	48,900	48,200	7,900
1910.....	166,100	153,500	35,300	42,200	49,800	9,400
1911.....	175,700	172,800	32,800	42,400	51,400	11,100
1912.....	203,300	178,300	36,500	55,600	53,100	12,800
1913.....	230,100	203,000	31,100	76,500	54,400	14,100
1914.....	257,300	211,100	27,600	82,500	54,400	14,100
1915.....	294,300	188,900	10,000	153,900	54,400	14,100
1916.....	321,200	187,700	14,400	155,800	54,400	14,100
1917.....	370,200	226,700	35,600	125,700	54,900	14,500

¹ Sources: Memoria del Departamento de Hacienda, 1917; Economía y Finanzas de la Nación Argentina, Carlos F. Soares, Buenos Aires, 1916; published by Talleres Gráficos Rodríguez Giles, 434, Loria.

NOTE.—The Argentine paper peso was converted to United States currency in the above table at the rate of 42.5 cents per peso, and the gold peso was converted at the rate of 96.5 cents per peso.

THE FOREIGN COMMERCIAL BANKS IN ARGENTINA.

The trade of the Republic was almost entirely with foreign countries before the war, so that banking has assumed an international character and is in the hands of foreigners to a certain extent, because they handle so much of the foreign business. Each of the banks keeps in touch with the country of its origin and attempts to gather around it a clientele of its own nationality. This situation has produced an independence and a free competition which has extended to the domestic banks and has resulted in excellent service, but also in a tendency for an overextension of credit, because of lack of any cooperative control.

The most important of the foreign banks are included in the table on page 115. The British banks are especially powerful, due to their early start, to their great export and import business, and to their management of the huge British investments. The German banks serve principally their industrial houses and also German exporters. The French Bank of the Río de la Plata, closely connected with the Paris market, has a strong position in Buenos Aires and is of great assistance to French trade. The Italian banks do much small business for their many Italian clients. The Yokohama Specie Bank opened a branch in Buenos Aires on May 6, 1918. This fact, together with its increasing merchant marine, indicates that Japan intends to take an important part in the commercial transactions of Argentina through the advantage of cheap labor.

The participation of banks of the United States in Argentine banking operations started in November, 1914, the National City Bank of New York City being the first bank of the United States to avail itself of the privilege of establishing foreign branches granted by the Federal reserve act of 1913. Its growth has been rapid, and the table shows that on March 31, 1919, this bank stood tenth among the 28 banks listed, as regards the total amount of deposits. In 1915

the Argentine loan was financed through the medium of this institution, and the Industrial Union of Argentina conducted its notable negotiations in 1916 with the United States through the same medium. This union settled a large number of claims arising from misunderstandings with our exporters. Other banks of the United States which have entered the Argentine field are the First National Bank of Boston and the Guaranty Trust Co., of New York.

REGULATIONS REGARDING ESTABLISHMENT OF FOREIGN BRANCHES
IN ARGENTINA—LAW OF 1913.

The amount of capital to be devoted to the operation of the proposed branch must be stated; otherwise the whole capital of the parent institution is taxed. The capital of the branch must be paid in gold into the Office of Conversion and national paper currency will be issued. This may be loaned out, as no reserve is required against capital; but 65 per cent of the deposits must be kept in reserve. These banks must also pay annual trading licenses, varying from \$7,000 to \$60,000. Stamp taxes are also employed.

INSTITUTIONS CLOSELY CONNECTED WITH COMMERCIAL BANKING.

SAVINGS BANKS.

In September, 1914, an Argentine Postal Savings Bank (Caja Nacional de Ahorro Postal) was created under national guaranty and started operations on April 5, 1915. One year later there were 91,909 depositors, and by October 18, 1917, the number of depositors had increased to 212,881.

This is a report of its banking operations:

ARGENTINE POSTAL SAVINGS BANK.¹

[United States currency.]

Periods.	Deposits.	Reimbursements.	Balance.
Apr. 5, 1915, to Dec. 31, 1915.....	\$1, 147, 998	\$226, 830	\$921, 168
1916.....	2, 847, 412	1, 242, 754	1, 604, 658
1917.....	4, 002, 833	2, 441, 982	1, 560, 901
1918 (first 5 months).....	1, 660, 834	1, 138, 647	522, 187

¹ Source: Business Conditions in Argentina, Tornquist Report No. 142, p. 15.

The Government controls the minimum and maximum amounts that may be deposited, the interest rates, etc. This is the first institution whose only function is to promote saving. During the year following its organization 185 post offices were authorized to receive savings deposits. Sixty-five of these were in Buenos Aires.

THE NATIONAL MORTGAGE BANK.

This bank (Banco Hipotecaria Nacional), founded in 1886, has been granted the right to make loans by means of issues of cédulas, which are bonds to bearer. These bonds, which bear interest at 5 to 6 per cent, are given to persons mortgaging their properties to the bank,

and such bonds find a ready market on the exchanges both at home and abroad. While European capital, especially Belgian, has freely sought this type of investment, that of North America has been invested only lightly and within the past two years. The Argentina cédula is a desirable form of investment because of the safeguards placed by the Government around the mortgage business, viz: (a) The Republic does not recognize a secret mortgage; (b) no liens take precedence over the rights of the mortgagee; (c) the mortgage is signed before a notary and is registered; (d) the notary must demand a certificate stating that the property is free from incumbrances.

The following table shows the amount of new mortgages and amortizations made in the city of Buenos Aires from 1913 through August, 1918. The figures include all business of this nature, whether transacted through the National Mortgage Bank or some other institution. From 1905 to 1914, inclusive, the new mortgages were much larger in amount than the payments made on old mortgages, but the war has brought about a reversal of this condition.

MORTGAGE TRANSACTIONS—CITY OF BUENOS AIRES.¹

[United States currency.]

Years.	Amortizations.	New mortgages.
1903.....	\$19,033,370	\$14,480,813
1905.....	18,128,673	20,469,105
1907.....	20,367,233	44,822,285
1909.....	33,818,015	57,892,055
1911.....	45,457,958	128,135,845
1913.....	50,192,160	111,342,563
1914.....	41,544,855	75,436,140
1915.....	41,684,595	37,708,168
1916.....	52,794,563	31,073,875
1917.....	56,754,543	29,517,568
1918 8 months.....	36,113,440	22,855,905

¹ Source: Tornquist & Cia., Business Conditions in Argentina, Report No. 142, p. 38, and No. 143, p. 24.

In 1915 the total value of mortgages upon properties in Argentina was calculated at \$1,265,456,270, which was estimated as being 15 per cent of the total value of private property in Argentina. The National Mortgage Bank held \$247,541,800, or 20 per cent; mortgage companies (mostly British), 30 per cent; private lenders, 43 per cent; and cooperative insurance societies, 7 per cent.

THE CLEARING HOUSE.

Closely connected with banking operations is the question of facilitating the negotiation of commercial paper. An institution for this purpose was established in 1893 by the British banking interests. The Bank of the Argentine Nation, however, did not participate until 1913, when the clearing house was transferred within the walls of this institution and came under the control of the Argentine nation. The result of this change is manifest in the figures which follow. Note the effect of the war on the amount of clearings.

CLEARING-HOUSE OPERATIONS IN BUENOS AIRES.¹

Years.	Clearings.	
	Paper pesos.	United States currency.
1910.....	5,053,175,600	\$2,147,599,630
1911.....	5,475,319,700	2,327,010,873
1912.....	6,888,898,000	2,927,781,650
1913.....	17,652,874,600	7,502,471,705
1914.....	12,278,804,800	5,218,492,040
1915.....	13,502,433,000	5,738,534,025
1916.....	15,783,775,300	6,708,104,503
1917.....	19,043,286,400	8,093,396,720
1918 (first 11 months).....	24,536,035,600	10,427,815,130

¹ Sources: Economía y Finanzas de la Nación Argentina, p. 106; Business Conditions in Argentina, Tornquist & Cia., (Report No. 142, p. 15, and Report No. 143, p. 11).

INSURANCE COMPANIES.

A very important place in the financial interests of a country is held by its insurance companies. During the first week of February, 1919, Consul General Robertson, of Buenos Aires, stated that there was a pronounced need for American marine and fire insurance companies, due to the constantly growing commercial relations between the United States and Argentina.¹

In 1917 there were in Argentina 26 British insurance companies, 3 German, 3 American, 2 French, 1 Swiss, and 1 Brazilian. All these concerns have their main offices in the capital. A number of cooperative societies and 58 or more local companies handle various lines of insurance. The foreign companies pay a higher rate of taxation on premiums than the domestic companies, and they pay also a sum for trading licenses. These concerns must deposit a sum approximating \$130,000 and must pay a tax of 2 per cent on life and workmen's compensation, as compared with the one-half of 1 per cent paid by local companies. On fire, marine, and accident insurance the rate is 7 per cent, in contrast with the 1.4 per cent paid by local companies.

BANKING REFORM.

During the years 1902-1912 a series of good crops and a large influx of immigrants produced prosperity in Argentina. In the two years that followed, adversity overtook this Republic on account of poor crops, the curtailed shipping facilities, and because the financial organizations were not able to stand the strain. Lack of cooperation among the banks had resulted in overextension of credit and the monetary system was unable to meet the demands for a flexible circulation. So it is with regret that this item is recorded (April, 1918): "A recent attempt to establish a central reserve bank and to reform the currency has been unsuccessful."

The suggestion has been frequently put forth that the Republic might more strongly control and regulate banking operations by giving a commanding position to the Bank of the Argentine Nation.

¹ The rules and regulations governing foreign insurance companies may be obtained by addressing the Ministerio de Hacienda, Sección de Seguros, Casa del Gobierno, Buenos Aires.

This bank should be able to offer rediscount facilities to the other institutions. The following results would be the outgrowth of such a procedure, viz: (a) Stabilization of rates of interest, with probable reduction; (b) better tabulation of credit information, thereby lessening the dangers of the present method; and (c) placing a check upon unrestrained banking. This has not been accomplished because the other banks, under the present conditions, regard the National Bank as a competitor and have no desire to disclose their accounts and information.

Argentine banking has weathered the storm created by war conditions, but the reforms suggested above would tend to prevent the recurrence of excessive booms and of panics such as occurred in 1913-14.

THE NATIONAL DEBT.

The table following shows the total debt of Argentina, including not only the debt of the Federal Government but also the debts of the Provinces and municipalities. The outstanding cédulas of the National Mortgage Bank are also included, as they are guaranteed by the Federal Government.

NATIONAL PUBLIC DEBTS.¹

[United States currency.]

Years.	Funded debt.	Floating debt.	Total debt.	Interest and other charges.
1913.....	\$658,240,000	\$74,158,000	\$732,398,000	\$35,818,000
1914.....	682,150,000	99,134,000	781,284,000	36,737,000
1915.....	722,165,000	76,672,000	798,837,000	36,737,000
1916.....	707,707,000	74,451,000	782,158,000	41,265,000
1917.....			² 776,100,000	

¹ Source: Fitch Record of Government Finances for 1918, p. 3.

² Figures from statement in message of the President to the legislature.

The per capita total debt is \$96 to \$97 (United States currency). The following table ¹ gives the figures for the debt of the Federal Government.

Years.	Gold pesos.	U. S. currency. ¹
1911.....	526,540,088	\$508,111,185
1912.....	531,498,699	512,896,245
1913.....	544,820,000	525,751,300
1914.....	545,023,470	525,947,649
1915.....	537,582,830	518,767,431
1916.....	546,787,905	527,650,328
1917.....	595,410,400	574,571,036

¹ Conversion factor: 1 peso = \$0.965

The Minister of Finance submitted a report in which he stated that the floating debt of the Federal Government incurred as a result of the war amounted approximately to \$243,400,000 (United States currency).

¹ Source: Revista de Economía y Finanzas, 1918.

REPORT OF MINISTER OF FINANCE, AUGUST, 1918.¹

Obligations.	Amount, U. S. currency.
Short-time loans outstanding abroad of 5,000,000 pesos and \$25,000,000 United States contracted on May 7, 1913, in London and New York, at 6 per cent interest, to mature May 13, 1920 ²	\$49,367,614
Loans from banks and other establishments in Argentina, including the Bank of the Argentine Nation.....	130,453,750
Due Bank of the Argentine Nation.....	30,599,844
Advance from Bank of the Argentine Nation (as of Aug. 5).....	10,656,011
Purchase of mole at Puerto Militar, treasury bills (interest included) maturing on Feb. 15, 1920.....	4,234,234
Treasury bills (as of Aug. 6).....	7,697,769
Floating debt from 1917 and previous years (as of June 30 last).....	8,245,000
Supplementary credits (estimated).....	2,125,000
Total.....	243,379,222

¹ Source: Commerce Reports, Oct. 16, 1918.

² For the past 30 years Baring Bros., of London, have acted as agents in floating Argentine loans in England. The British have invested in these quite freely. Since 1914 the National City Bank of New York City and the First National Bank of Boston have made loans to Argentina.

A study of the debt of the Federal Government shows that there has been a tendency for the debt to increase. There are only three possible basic reasons for this: (1) Rapid increases in expenditures, or (2) decreases in revenues, or (3) a combination of these two. To bring out clearly which of these is to be taken as the reason for the increase in the debt which has occurred in late years, the following table of expenditures and revenues is given:

REVENUES AND EXPENDITURES, 1912-1918.¹

Year.	Revenue (United States currency).	Expenditures (United States currency).
1912.....	\$143,009,767	\$171,832,028
1913.....	148,509,481	171,527,658
1914.....	106,319,697	178,415,581
1915.....	106,693,806	145,848,766
1916.....	109,876,701	166,839,874
1917.....	107,360,143	168,406,894
1918.....	² 164,082,493	168,878,713

¹ Source: The South American Journal, July 20, 1918. From the Argentine presidential message, May 16 1918.

² Estimates. Note that the estimated revenue is larger than in the preceding year.

The changes in the expenditure totals show no marked variance, but there has been a slight decrease, due to fewer extravagant outlays common in former years, when lavish expenditures were made upon unproductive projects, such as railroad extensions and ports on the Atlantic which do not benefit the present generation. It is also true that expenditures for administrative purposes were reduced approximately \$12,000,000 United States currency in 1918, but the expense of maintaining the public debt increased. The growth of national indebtedness, therefore, was due to decreased revenue. The decrease in revenue was caused by the decline in the receipts from customs.

SOURCES OF REVENUE.

The following table, which gives the figures of the 1918 budget for the principal sources of revenue, shows clearly the predominance of the import duties as a source of revenue:

SOURCES OF REVENUE.¹

Items.	Paper pesos.	United States currency. ²
Import duties.....	124,050,000	\$52,721,250
Export duties.....	50,000,000	21,250,000
Tobacco.....	30,000,000	12,750,000
Stamps.....	20,000,000	8,500,000
Port charges, etc.....	14,300,000	6,077,500
Wines.....	12,200,000	5,185,000

¹ Source: Standard Daily Trade Service, August, 1917. ² Conversion factor: 1 paper peso=\$0.425.

Duties on imports have always supplied a high percentage of Government revenue. The revenue from this source has averaged about 63 per cent of the total national income. The following figures show the loss from this source sustained during the war, due to the shortage of tonnage and the commercial regulations of the Allies and the United States:

REVENUE DERIVED FROM DUTIES LEVIED ON IMPORTS.

Years.	Gold pesos.	United States currency. ¹
1911.....	77,862,358	\$75,137,175
1912.....	82,889,737	79,988,596
1913.....	87,633,788	84,566,605
1914.....	52,079,300	50,256,582
1915.....	41,754,171	40,292,775
1916.....	43,153,496	44,538,124
1917.....	42,520,751	41,032,525

¹ Conversion factor: 1 peso=\$0.965.

The Argentine Government has recognized that the old method of raising revenue is not suited to securing sufficient funds to cover necessary expenditures and is considering new methods of acquiring revenue, which are discussed in the following section.

NEW SOURCES OF REVENUE.

In a speech delivered on August 31, 1918, President Irigoyen summarized the proposed new sources of revenue as follows:

- (1) A reasonable increase in the customs appraisements of the import tariff list;
- (2) Modification of the basis for the collection of the export duties;
- (3) An increase of 50 per cent in the present statistical tax;
- (4) An equitable increase in port duties;
- (5) Modifications of the inland revenue taxes on tobacco, cards, etc.,
- (6) Increased earnings of the national transport fleet;
- (7) An increase of the Argentine consular fees; and
- (8) The establishment of a national income tax.

TAXES ON IMPORTS AND EXPORTS.

The higher appraisement on imported commodities was deemed advisable because the former classification was determined in 1906, when values were lower. The Government in the last quarter of 1918 increased the appraised value 20 per cent. This tends to produce 20 per cent additional revenue from such goods as bear an ad valorem tax. Opposition has been expressed on the grounds that such a measure tends to augment the high cost of living. Those in favor of the new regulation state that most of the imported articles of prime necessity have a specific tax and are, therefore, not affected by the ad valorem duty. This answer is only partly true, inasmuch as ad valorem duties are levied upon imports of wearing apparel, textiles, hardware, dry goods, drugs, chemicals, electrical supplies, etc.

One of the most effective methods of increasing the revenue lies in the restoration of heavier duties on exported commodities. In 1912 the money received from this source was 1,962 gold pesos. The estimate for 1918 was 28,908,000. The law as passed in January, 1918, provided that certain commodities have their basic prices fixed monthly by an authorized committee, and if sold above this appraised value the increase is fixed in this manner, viz, 15 per cent tax on exported animal products and 12 per cent on agricultural goods.

INCOME TAX.

In the estimate of revenue for 1919 an entirely new source was proposed, viz, the income tax. It was expected to yield during that year a revenue of 30,000,000 pesos paper (\$13,425,000 United States currency). The fundamental principle of the tax is summed up in this clause:

Every person or incorporated body domiciled in the territory of the Republic shall pay annually a fixed tax of 2 per cent upon his or her net income derived from the country or from abroad during the preceding year when such income is in excess of 1,500 pesos paper (\$671 United States currency) per annum.

MISCELLANEOUS SOURCES.

The Argentinians have attempted to increase the revenue by various other expedients. Internal taxes have been increased, especially on wines, tobacco, playing cards, etc. Shipping interests find the charges for using port facilities more expensive. Thus a vessel of 7,000 tons net register from foreign ports remaining in port six days formerly paid about \$2,040 shipping dues; to-day the cost is \$4,080. In the same way the charges for vessels engaged in coast trade have increased, but not to the same degree. The free ports, which were so inducive to the growth of southern Argentina, have been abolished and customhouses established. All phases of financial life are taxed, and one of the newer forms is a 5 per cent tax on interest money received by holders of mortgages. Even pleasures are affected, and, besides the returns from the national lottery, attendance at the race track and participation in the betting have both become fruitful sources of State income.

The great need for more revenue will probably result in benefiting Argentina. Economies will be instituted, an appreciative study of the national resources will be made, and the result promises an efficient exploitation of these assets on the basis of conservation.

FOREIGN INVESTMENTS.

The value of foreign investments in adjusting unbalanced trade is described in the following section, where the heavy pre-war imports of England and Germany into Argentina are given. England, the heaviest investor, is especially interested in railway development; Germany in electrical power and lighting plants; the investments on the part of the United States are very small. The table below shows how the investments affected the imports from these countries.

TYPES OF FOREIGN INVESTMENTS.

One of the Argentine statisticians in May, 1918, gave the following table to show the extent and distribution of foreign capital invested in his country.

FOREIGN INVESTMENTS, EXTENT AND DISTRIBUTION.

Types of investment.	Capital invested.	
	Gold pesos.	U. S. currency
Various Argentine loans and issues.....	657,303,460	\$634,297,839
Railways.....	1,344,326,465	1,297,275,039
Banks.....	51,981,022	50,074,836
Ports.....	22,163,909	21,388,172
Tramways.....	109,496,149	105,663,784
Freezing establishments.....	40,916,439	39,484,364
Gas, electricity, water, and drainage companies.....	78,373,018	75,629,962
Land and rural property companies.....	79,681,618	76,892,761
Mortgages.....	500,015,962	482,515,403
Insurance.....	3,886,464	3,750,438
Industrial establishments.....	507,760,000	489,988,400
Telephone and radio-telegraphic companies.....	21,340,000	20,593,100
Commerce.....	465,169,244	448,888,321
Total.....	3,882,323,750	3,746,442,419

Although it is difficult to ascertain the capital invested by the different nations, the authority quoted above believes that the British investments amount to a sum between \$2,000,000,000 and \$2,500,000,000, or over 50 per cent of the total invested. The French-invested capital in 1913 was estimated at \$400,000,000; the German capital at \$250,000,000. Italians and Belgians are also heavy investors.

THE RAILWAYS.

More than twice as much foreign capital is invested in the Argentine railways as in any other industry. The importance of investment in this branch well illustrates the importance of all investments in countries where it is desired to build up trade. The heaviest investors are the British. The money invested seldom leaves England, because the initial loan goes to pay British makers of railway supplies for the material used in building and later maintaining the

railroads. In the case of Argentina the absolute inability to supply fuel and other materials for railway maintenance makes necessary a continued export trade in these commodities from the investing countries. The majority of these countries buy less than they sell Argentina. A balance is due them each year. The dividends and interest pay this balance and thus facilitate exchange relations. In 1913 the following balances were due the countries named:

Great Britain.....	\$10,500,000
Germany.....	13,500,000
United States.....	40,000,000
France.....	1,000,000
Italy.....	15,000,000

The United States, with the largest balance, has small returns from investments.

The natural resources of Argentina make certain its commercial development, and this growth constantly demands increased and improved transportation facilities. To-day the capital invested in the privately owned lines is more than \$1,200,000,000. Great Britain controls about \$1,000,000,000 of this large investment. France, with three or four railways in the northern Provinces, has the next largest interests. Before the war the shares of the larger lines were far above par and the dividends on the ordinary stock averaged 7 per cent. The holdings of the other nations in this line of investment are small.

GOVERNMENT LOANS AND ISSUES.

At the beginning of 1916 the Government loans amounted to \$350,000,000 out of an original sum of \$430,000,000. These loans have been contracted to defray expenses in former Argentine wars, to assist in the building of railroads, to further provincial and municipal improvements, and to pay debts due cities and banks. The bonds find great favor abroad, especially in Europe, where the quotations normally are at a premium. In the period of 1911-1914, issues at 5 per cent sold at 104 to 106. Great Britain holds a large share of these bonds, most of which were floated by the great English banking house of Baring Bros. & Co. Recent short-term issues have been financed in the United States and taken up eagerly. The United States is probably the second largest investor in Government issues to-day. The Provinces and cities have also borrowed, and their loans are in British and German hands.

BANKS AND BANKING.

In this field also the British are great investors. Not only does the control of banking institutions make possible more reliable credit information and offer opportunities to facilitate exchange, but this type of investment is secure and profitable. The three large British banks paid during the three pre-war years dividends amounting to 22, 20, and 12 per cent, respectively. The shares sold at 185, 248, and 100½. The majority of the European nations doing a large volume of business with Argentina have interests in one or more of the banks. Since the passing of the Federal reserve act in December, 1913, the United States has established branch banks in Buenos

Aires. The National City Bank and the Guaranty Trust Co., of New York City, and the First National Bank of Boston, have established such connections.

PUBLIC UTILITIES.

Europe has invested in electric light and power companies, gas companies, tramways, telephone companies, water supply, and sanitary works. As in the case of the railways, supplies for installation and maintenance come from the investing countries. The improved conditions attract people and increase trade, which reacts on the business done with the countries interested in the enterprises.

Electricity is used more extensively than gas for lighting and heating. A powerful German-owned company controls the electrical supply in Buenos Aires, Montevideo, and Valparaiso. In Buenos Aires the Italian company (Italo-Argentine Electric Co.) competed with the Germans before the war, and lately has gained great strength. Before the war the German company averaged dividends of 10 per cent. The limited coal supply of the last four years has adversely affected these concerns. In the smaller cities are found British, French, and Belgian companies.

The tramways and telephone companies have much Argentine capital invested, while the sanitary works and water supplies of the municipalities have been assisted by British capital especially.

INVESTMENTS IN THE INDUSTRIES.

Investments in mining companies, especially petroleum, are more or less in the speculative stage, while investments in agricultural and pastoral industries consume Argentine capital chiefly.

The war hastened a plan, already well started, to interest American capital in the meat-packing industry in Argentina. As early as 1913 the Argentine and British controlled companies appealed to the Government to limit the output of the American plants. This is an indication of the success of Americans in this field, which offers one of the best opportunities for American capital.

EFFECT OF WAR ON THE FOREIGN INVESTMENTS.

The Allies have large holdings in Argentina. In spite of the need to pay debts, especially to the United States, it is not likely that many of these lucrative and secure investments were transferred. The German capital is interested chiefly in banks and in the German Transatlantic Electric Co., with its branches in Montevideo and Valparaiso, probably the largest overseas electrical plant of any nation. Its value as a purchaser of German electrical goods is tremendous. Its investment in electrical equipment in Buenos Aires alone is estimated at \$10,000,000. Negotiations were started to buy these plants and equipment, but were halted because of the fear that such a transfer would make these properties unavailable for indemnity purposes.

During the last few years the United States has established branch banks, floated several Government loans, and has taken a prominent place in the meat-packing industry. The surplus capital in the

United States has been started toward Argentina, and the next few years will probably witness increased holdings.

(Special reference: Investments in Latin America, Special Agents Series No. 169, Bureau of Foreign and Domestic Commerce.)

THE BALANCE OF TRADE.

Argentina for many years has shown a favorable balance of trade, with one exception. In 1911, a bad crop year, the balance against it was \$60,508,000. With the beginning of the war, imports were curtailed and exports were increased. In 1913 the favorable balance was \$22,126,000, while in 1915 the maximum of \$267,007,000 was reached. In 1916 and 1917 the balances were not so large, although great in comparison with the pre-war balance. In 1918 for the first nine months the balance in favor of Argentina was \$245,720,000, which indicates that 1918 was probably the climax. The quantity imported in 1918 was also the smallest, due to lack of tonnage, while the exports reached the high-water mark both in quantity and value. Graph No. 16, on page 87, and the following table show Argentina's balance of trade since 1910:

ARGENTINA'S BALANCE OF TRADE.¹

[United States dollars; 000 omitted.]

Years.	Total imports.	Total exports.	Balance in favor (+) or against (-) Argentina.
1910.....	366,075	375,454	+ 9,379
1911.....	390,844	330,336	- 60,508
1912.....	431,223	481,090	+ 49,867
1913.....	478,859	500,986	+ 22,127
1914.....	311,241	389,022	+ 77,781
1915.....	294,796	561,803	+267,007
1916.....	353,316	552,945	+199,629
1917.....	367,010	530,914	+163,904
1918 (first 9 months).....	353,057	598,774	+245,717

¹ Source: El Comercio Exterior Argentino, Boletfn No. 177, 1918.*

*Real values. The following quotation from the Fitch Record of Government Finances for 1918 explains the discrepancies in official figures on Argentina's trade: "Corrected figures (or real values), showing actual f.o.b. and c.i.f. values, do not correspond with the official figures which are usually given (in detailed tables) on Argentine trade. In Argentine official returns export figures are based on the current market values of the merchandise, but are only approximately correct. Import figures, however, have no relation to current market values. They are based on the officially fixed valuation for customs in the tariff of 1903, with slight subsequent modifications." This situation is explained more fully in the introduction to this publication.

ARGENTINA'S BALANCE OF TRADE WITH SELECTED COUNTRIES.¹

[United States dollars; 000 omitted.]

Years.	United States.			United Kingdom.			Germany.		
	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.
1910.....	50,368	25,511	-24,855	113,781	81,395	-32,385	63,589	45,390	-18,198
1911.....	55,775	24,715	-31,058	115,737	93,412	-22,325	70,154	43,809	-26,346
1912.....	66,243	32,632	-33,610	132,951	122,273	-10,673	71,637	54,397	-17,239
1913.....	70,456	23,728	-46,728	148,661	124,750	-23,910	80,995	60,023	-20,971
1914.....	41,984	47,736	+ 5,751	105,835	113,754	+ 7,917	45,774	34,222	-11,552
1915.....	72,943	90,426	+17,481	88,040	166,042	+73,001	7,342	.....	- 7,342
1916.....	103,243	115,539	+12,295	99,590	162,642	+63,050	589	.....	- 589
1917.....	133,251	155,625	+22,373	80,079	155,217	+75,136	283	.....	- 283

¹ Source: Intercambio Económico de la República, 1910-1917; El Comercio Exterior Argentino en 1916 y 1917, Boletfn No. 176.

ARGENTINA'S BALANCE OF TRADE WITH SELECTED COUNTRIES—Continued.

Years.	Spain.			Brazil.		
	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.
1910.....	11,349	2,891	- 8,458	9,469	17,672	+ 8,202
1911.....	12,016	2,215	- 9,801	9,014	18,179	+ 9,164
1912.....	13,363	3,609	- 9,754	10,696	22,814	+12,118
1913.....	14,071	4,992	- 9,077	10,516	25,193	+14,676
1914.....	9,846	2,677	- 7,168	10,632	17,491	+ 6,859
1915.....	14,727	7,181	- 7,539	13,483	22,047	+ 8,562
1916.....	21,900	8,717	-13,183	19,333	24,940	+ 5,595
1917.....	26,529	8,814	-17,715	36,549	22,021	-14,528

Years.	Uruguay.			Japan.		
	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.	Imports from.	Exports to.	Balance in favor (+) or against (-) Argentina.
1910.....	2,352	1,544	- 807	793	.....	- 796
1911.....	3,269	2,380	- 888	552	.....	- 552
1912.....	2,796	4,743	+1,952	867	.....	- 867
1913.....	3,630	6,529	+2,898	985	17	- 967
1914.....	3,355	5,253	+1,897	556	.....	- 556
1915.....	2,441	8,008	+5,567	1,061	.....	-1,060
1916.....	3,995	6,604	+2,608	1,921	.....	-1,921
1917.....	6,732	10,313	+3,580	3,202	2,036	-1,165

NOTE.—There is a slight per cent of error in the above figures, owing to the conversion of the gold pesos with the thousands omitted and the use of \$0.965 as the conversion unit.

From the foregoing table it may be seen that Argentina's balance of trade with the United States was unfavorable to Argentina until 1914. In that year the balance changed and increased until in 1917 Argentina was exporting an excess of \$22,373,000 worth of goods to the United States. This was largely due to an increase in the price of commodities rather than to an increased quantity. The effect upon the exchange rate has also been unfavorable to the United States. It is probable that these conditions will adjust themselves, now that shipping conditions are better, and especially since the United States has removed the restriction on the exportation of gold.

ARGENTINA'S TRADE WITH THE UNITED STATES.

[United States dollars.]

Years.	Per cent of total imports from the United States.	Per cent of total exports to the United States.	Balance of trade in favor of (+) or against (-) Argentina.	Total balance of trade in favor of Argentina.
1913.....	14.9	4.7	-46,728,000	+ 22,127,000
1914.....	13.5	12.3	+ 5,752,000	+ 77,781,000
1915.....	16.1	16.1	+17,482,000	+267,007,000
1916.....	29.4	20.9	+12,296,000	+199,629,000
1917.....	36.3	29.3	+22,374,000	+163,904,000

The same conditions showed in Argentina's trade with the United Kingdom. The value of imports from the United Kingdom decreased. In connection with a period of rising prices, this decrease must have meant a very great decrease in the quantity imported. With the increase in value of exports, the balance of trade in favor of Argentina was greater than that with the United States.

Exports to Germany ceased in 1914, and for the entire period of the war the balance of trade against Argentina showed a decreasing amount, until in 1917 it had become very small. With the other countries shown in the table the outstanding features in the trade are: An increase in the values of both imports from and exports to Spain, with the balance increasing in favor of Spain in 1916 and 1917; a favorable balance of trade with Brazil through 1916, although the value tended to become less after 1913, and in 1917 an unfavorable balance of quite large value through a large increase in the values of imports from Brazil; reciprocal trade with Uruguay increased during the period with the balance of trade in favor of Argentina; the value of imports from Japan increased steadily, while Argentina sent no goods, with the exception of a small quantity in 1913, until in 1917 it sent \$2,036,000 worth, thereby lessening the unfavorable balance against it 39 per cent from that in 1916.

The main problems in connection with the balance of trade in Argentina are those dealing with the difference in the value of exports and imports and with the adjustment of exchange rates.

With the exception of two or three lean seasons, the past 20 years have witnessed a substantial increase in the balance of trade in favor of the Republic. The following official statement explains the situation in the year 1916:

BALANCE OF TRADE, 1916.

THE WORLD OWED ARGENTINA.

	Gold pesos.
Value of exports.....	572, 999, 522
Purchase of bonds, mortgages, etc.....	52, 170, 000
Expenses of foreigners in Argentina.....	5, 000, 000
Total.....	630, 169, 522

ARGENTINA OWED THE WORLD.

	Gold pesos.
Value of imports.....	366, 130, 571
Foreign loans.....	10, 000, 000
Interest on national, provincial, and municipal loans.....	51, 117, 228
Interest and dividends from railways.....	46, 195, 908
Interest from mortgages.....	37, 947, 024
Interest from other investments.....	22, 966, 389
Transferring of immigrant earnings.....	33, 000, 000
Expenses of Argentinians abroad.....	5, 000, 000
Total.....	572, 357, 120

Deducting the second total from the first, we find that the world owed Argentina 57,812,402 gold pesos net. In this particular year the debt was paid by net imports of gold to the value of 25,516,345 pesos, and the balance (32,296,057 gold pesos) was devoted to diminishing loans and investments and canceling mortgages held in Argentina by foreigners. In previous years the balance was not large enough to even pay the Argentine current debt, so the foreigners

allowed their credit to go toward further investments in the Republic. The war brought Argentina a trade balance sufficiently large to pay all its foreign current debts and then leave a balance in its favor. It has become a creditor nation in actuality. However, this very condition has been conducive to unworkable conditions in the exchange rates, which required for solution methods new in Argentine history.

The increasing trade balance and the reluctance of the Allies to ship gold to Argentina caused the exchange rates to soar. The par value of Argentine exchange is in London 48 to 48½ pence per Argentine gold peso and in New York is \$0.9648 per gold peso. In August, 1918, the respective rates were 50½ pence and \$0.99½, and foreigners owing Argentine merchants had to pay these high rates. The result was an increase in prices, in order to meet the extra expense, or else a diversion of foreign trade to other markets. This exchange situation favored the Argentine importer, but he could not increase his business because of limited shipping facilities.

In order to save the situation Argentina made financial agreements with the Allied Governments. A credit of £40,000,000 was given to the British and French Governments, from which cereals could be purchased with Argentine money. The Argentine Government could then draw on London and Paris if the rate of exchange did not exceed 50d. and 5.60 francs, respectively. If, however, the rate of exchange was higher than this figure, the Argentine Government was to allow amounts to stand to her account. The balance which remained was to be settled by the respective Governments in gold 24 months after the signature of the agreement. A similar agreement for \$40,000,000 was made with the United States. Later this sum was increased to \$60,000,000. Merchants in the United States were to deposit money owed to Argentine firms with the Argentine ambassador in Washington, who placed the money in current account in the New York Federal Reserve Bank. The Bank of the Argentine Nation, or the Office of Conversion, was to pay the Argentine creditors by drawing against the payments made to the Ambassador in Washington. No gold was to be shipped from the United States until after the signing of the treaty of peace.

PROBABLE RETURN OF EXCHANGE TO NORMAL.

With the return of normal conditions the imports will doubtless increase. Argentina is prosperous, which means that she has large purchasing ability. The lack of shipping facilities has prevented importation of many things that the people will now be glad to purchase. On the other hand, it is not probable that the inflated war values of Argentine exports will continue indefinitely. Both the increase in imports and the decrease in value of exports will tend to lessen the large balance of trade in Argentina's favor, and this will tend to bring exchange back to its pre-war level.

BIBLIOGRAPHY.

Publications which were used in the preparation of this report on Argentina are marked with an asterisk (*).

A bibliography of publications on Argentina which are found in the libraries of the Bureau of Foreign and Domestic Commerce and the Pan American Union, Washington, D. C.:

ALMANACS, DIRECTORIES, ENCYCLOPEDIAS, AND GUIDES.

- *American Exporter. Export Trade Directory, 1919-20. Export merchants, manufacturers' export agents, foreign exchange bankers, foreign freight forwarders, steamship lines, foreign consuls, etc., in principal ports of the United States. (Johnston Export Publishing Co., 17 Battery Place, New York; branches in Boston, Philadelphia, Cleveland, Detroit, Chicago, St. Louis.)
- American Travel and Hotel Directory. Latin American edition. 1918 (fourth) edition. Copyrighted in the United States and Canada by the Independent Printing Companies of the United States, Washington, D. C. Compiled under the direction of Harold W. Phillips; 98 pages. Argentine Republic, pages 17-21.
- *Anuario de la América Latina, 1914. General information of the imports and exports, industries, agriculture, live stock, and mineral production, etc., of the Americas. Written in Spanish; 1944 pages. ("Anuarios Bailly-Bailliere y Riera Reunidos." Offices: Consejo de Ciento, 240, Barcelona, Spain.) Argentina, pages 3-309.
- Anuario Kraft, Gran Guía General del Comercio y de la Industria, Profesionales y Elemento Oficial de la República Argentina. A classified directory of the commerce, industry, professions, and official status of the Argentine Republic, 1919, written in Spanish. (Proprietor and editor, Guillermo Kraft. Address: Calle España 151, Buenos Aires.)
- Argentine Republic. General list of importers, December, 1918. On file in the Bureau of Foreign and Domestic Commerce, Latin American Division, Washington.
- Argentine Standard Directory and Buyers' Guide for 1916 and 1917. Index of representatives of foreign manufacturers in Argentina. 435 pages. (The Standard Directory Co., Lavalle 341, Buenos Aires.) Agents in New York: Donnell & Palmer, 17 Battery Place.
- Argentine Standard Directory of National and Foreign Merchants and Manufacturers. 1919, eleventh edition. (Anuario Argentino de Fabricantes y Comerciantes Nacionales y Extranjeros.) Written in Spanish, French, and English. Branch office: Donnell and Palmer, 17 Battery Place, New York.
- *Baedeker of the Argentine Republic, by Albert B. Martínez, containing maps and plans of Argentina, of the town of Buenos Aires, of Montevideo, of Rosario, of the railway lines, and numerous illustrations. 1914 (fourth edition). R. Sopena, printer, Provenza 93, 95, and 97, Barcelona, Spain. 479 pages. Written in English.
- Bank and Public Holidays Throughout the World, 1918. Guaranty Trust Co. of New York, 140 Broadway, New York.
- *Encyclopedia of Latin America, 1917, giving special information on commerce, industry, banking, finance, railways, shipping, transportation, communications, trade, tariff, customs, and all matters of commercial importance. Editors: Marrion Wilcox and George Edwin Rines. (The Encyclopedia Americana Corporation, 27 William Street, New York.) 887 pages. Argentina, pages 162-227.
- English Standard Directory and Buyers' Guide of Argentina, 1915. (The English Standard Directory Co., Sarmiento 478, Buenos Aires. 352 pages.) Written in English.
- Eureka Argentina Guía. A City Directory of Buenos Aires. Written in Spanish. Proprietors: Silvestre L. Caamano. Office: Suipacha 18, Buenos Aires.
- *Exporters' Encyclopedia, 1918-19 (fourteenth edition), containing full and authentic information relative to shipments for every country in the world. (The Exporters' Encyclopedia Co., Maritime Exchange Building, 78-80 Broad Street, New York.) The Argentine Republic, pages 407-433.

- *Foreign Commercial Guide of South America. Edited by Edward James Cattell, assisted by H. S. Morrison and A. C. Kauffman. (Philadelphia Commercial Museum. Copyright 1903, 1904, 1906 by the Philadelphia Commercial Museum.) Giving physical and political features, banks, postal and cable rates, trade centers, customs duties, commercial travelers' licenses, patents and trade-marks, internal communication, resources, etc., of Argentina, pages 2-31.
- *Kelly's Directory of Merchants, Manufacturers, and Shippers of the World. A guide to the export and import shipping and manufacturing industries. (British, colonial, and foreign trades.) 1918. Thirty-second edition. (Kelly's Directories, Ltd.), 182, 183, and 184 High Holborn, London, W. C. 1. Branch Office, New York: Kelly Publishing Co., 70 Fifth Avenue.) Published annually.
- Lippincott's New Gazetteer or Geographical Dictionary of the World. (J. B. Lippincott Co., Philadelphia and London, 1916.) 2,105 pages.
- *Port Directory of the Principal Foreign Ports, 1911. (See United States Government publications, Navy Department.)
- Thomas' Register of American Manufacturers. (Thomas Publishing Co., New York. October, 1918, tenth edition.) 4,200 pages. A purchasing guide which aims to list all American manufacturers and primary sources of supply free of charge and irrespective of advertising and subscription patronage. For the use of both domestic and foreign buyers.
- *Trade Directory of South America for the Promotion of American Export Trade. Bureau of Foreign and Domestic Commerce, Miscellaneous Series No. 13. (Government Printing Office, Washington, 1914.) 428 pages. Argentina, pages 25-74. Out of print.
- United River Plate Telephone Co. (Ltd.), May, 1917; November, 1918. Official telephone directory. Written in Spanish. Office: Avenida de Mayo 761, Buenos Aires.
- Universal Directory of Railway Officials, 1918 (twenty-fourth edition). Compiled from official sources under the direction of S. R. Blundstone, editor of the Railway Engineer. (The Directory Publishing Company (Ltd.), 15 Farringdon Avenue, E. C. 4.) 645 pages. Argentina, pages 365-372.
- *World Almanac and Encyclopedia, 1919. Issued by the Press Publishing Co., Pulitzer Building, New York. Copyright 1918. 944 pages. Argentina, pages 371 and 449.

ARGENTINE PUBLICATIONS.

DAILY NEWSPAPERS, BUENOS AIRES.

In Spanish.

- *La Prensa, Avenida de Mayo 567; morning daily, established 1869; 16 to 24 pages; 17½ by 24 inches; circulation, 165,000. Foreign subscription price, \$27 per annum, advertising rates, \$3.55 to \$6.70 per inch.
- La Nación, San Martín 344; morning daily; established 1870; 16 to 24 pages, 17½ by 26 inches; circulation, 135,000. Foreign subscription price, \$24 per annum; advertising rates, \$2.15 to \$12.90 per inch.
- La Razón, Avenida de Mayo 760; afternoon daily; established 1904; 10 to 16 pages, 17½ by 26 inches; circulation, 50,000. Foreign subscription price, \$20 per annum; advertising rates, \$1.60 to \$3.70 per inch.

In English.

- The Standard, Rivadavia 835; morning daily; in English; established 1860; 8 to 16 pages, 16 by 23 inches; circulation, 5,500. Foreign subscription price, \$19.44 per annum; advertising rates, \$1.44 per inch.
- The Buenos Aires Herald, Corrientes 670; morning daily; in English; established 1880; 12 pages, 17½ by 22½ inches; circulation, 4,500. Foreign subscription price, \$16.32 per annum; advertising rates, \$0.72 per inch.

Special New Year Number. Dedicated to the present and future commercial interests of the allied nations in Argentina, January, 1919. (G. Leonard D. Jones, B. A., Buenos Aires.) 192 pages; illustrations.

GOVERNMENT PUBLICATIONS (OFFICIAL).

- *Anuario del Comercio Exterior de la República Argentina. Dirección General de Estadística de la Nación. (Talleres Gráficos de L. J. Rosso y Cía., Belgrano 475. Last edition 1918.) Showing principally Argentine imports and exports up to July 1, 1918. Boletín No. 178, contains statistics for the first six months of 1918.

- *Argentine International Trade, 1914-1915. Department of Agriculture. A few figures on its development. No. 8. Direction General of Commerce and Industry. (Department of Agriculture Printing Office, Buenos Aires, 1915; 64 pages; 1916, 61 pages.)
- *Argentine Republic. Argentine Commission at the Panama-Pacific Exposition, San Francisco, 1915. Descriptive of the growth and position of Argentina. 88 pages.
- *Bunge, Alejandro E. (Director General of Statistics of Argentina.) Riqueza y Renta de la Argentina, su Distribución y su Capacidad Contributiva, 1917. (Agencia General de Librería y Publicaciones, Calle Rivadavia 1573.) One volume.
- *Memoria del Departamento de Hacienda, 1917. (Talleres Gráficos Argentinos de L. J. Rosso y Cía., 471 Belgrano, 1918, Buenos Aires.) A yearly publication of the Treasury Department of Argentina.
- *Northern Patagonia—Character and Resources. Ministry of Public Works, Bureau of Railways, Argentine Republic. Text and maps by the Comisión de Estudios Hidrológicos, Bailey Willis, director, 1911-1914. Volume I, A Study of the Elements of Development in the Region Tributary to the National Railway from Port San Antonio to Lago Nahuel Huapi and the extension to Valdivia, Chile, including the Andean Lake district. 464 pages.

SPECIAL PUBLICATIONS.

- *Argentina Commercially Considered, 1918. (Syren & Shipping (Ltd.), 91-93 Leadenhall, London, E. C. 3.) New York Agents: 147 W. Eighty-second Street. 106 pages.
- *Torquist, Carlos A., Balance of Payments of the Argentine Republic for the Economic Year 1916-1917. (Carbone & Reyes, San Martín 85, 1918.) 41 pages.
- *Torquist, Ernesto & Co. (Ltd.), Buenos Aires. Reports 140-143, Business Conditions in Argentina. (Report No. 143 written December 30, 1918. 29 pages.)

WEEKLY AND MONTHLY PUBLICATIONS.

- Caras y Caretas, Chacabuco 151-5; illustrated weekly; established 1897; 100 to 120 pages, 7 by 10½ inches, printed on halftone news and coated book; circulation, 90,000. Foreign subscription price, \$8 per annum; advertising rates, quarter page \$46.32 to \$67.55, half page \$106.15 to \$127.38, full page \$159.22 to \$191.07. Printed by Caras y Caretas, Buenos Aires.
 - Mundo Argentino, Chacabuco 685; illustrated weekly; established 1910; 24 pages, 10½ by 14½ inches, printed on halftone news and coated book; circulation, 115,000. Foreign subscription price, \$3 per annum; advertising rates, \$6.05 to \$8.60 per inch to \$396 per page. Printed by Suc. de Ricardo Radaelli, Buenos Aires.
 - *Review of the River Plate. Weekly; established 1891. (Danvers & Co., Calle Bartolomé Mitre 427, Buenos Aires. New York agents: Donnell & Palmer, Whitehall Building, 17 Battery Place.) Price, \$24 paper, post free. Gives authentic information regarding commerce, industry, and finance, and weekly reports on cereals, wool, and meat.
 - *Revista de Economía y Finanzas, Avenida de Mayo 760; commercial bimonthly; established 1911; 24 pages, 8½ by 12 inches; circulation, 5,000. Foreign subscription price, \$8 per annum; advertising rates, \$40 per page, per month. Buenos Aires.
 - *South American. A monthly journal for all interested in Latin American affairs. (South American Publishing Co. (Inc.), 61 Broadway, New York.) Price, 25 cents; by the year, \$2.50; foreign, \$3.
 - *Trade Gazette. Monthly publication. (Official international organ of the British and Latin American Chamber of Commerce. English, Spanish, and Portuguese editions, London.) (Argentina—"Progress and Possibilities," Vol. I, No. 5, October, 1917, pages 18-20.)
- (A complete list of Argentine daily, weekly, bimonthly, and monthly publications may be found in Special Agents Series No. 163, published by the Bureau of Foreign and Domestic Commerce, Washington.)
- *Year Book, Argentine. (See Year books.)

ATLASES.

- *Century Atlas of the World. (The Century Co., New York, 1914.) 431 pages.
- Cram's Modern Reference Atlas, The United States and World. A complete and comprehensive index of all foreign countries. Facts carefully compiled from latest reliable official information. (George F. Cram Co., 130 Fulton Street, New York; 107 N. Market Street, Chicago, 1917.)

Donnelley's National Classified Telephone Directory and Buyers' Guide; "The National Red Book." February, 1918. Issued semiannually. (The Reuben H. Donnelley Corporation, 227 Fulton Street, New York; 633 Plymouth Court, Chicago.) 1027 pages.

*New Mercantile Marine Atlas. A series of 35 plates containing over 200 charts and plans. With tables of 10,000 distances between ports, national and commercial flags, cable and wireless telegraphy charts, with list of wireless stations, lists of United States and British consulates, and complete index of 20,000 ports, etc. Edited by George Philip, F. R. G. S. (C. S. Hammond & Co., New York, 1918; sixth edition.)

*Rand McNally International Atlas of the World. Containing large-scale colored maps of each State, Territory, and outlining possessions of every country in the world; each map accompanied by a page of letter press, covering area, population, resources, industries, climates, etc., of each State or country. A ready reference index on the margin of each map. (Rand McNally & Co., Chicago and New York, 1915.) 329 pages.

*Rand McNally & Co.'s New Imperial Atlas of the World. New official census. A ready-reference marginal index. (Rand McNally & Co., Chicago and New York, 1917.)

PAN AMERICAN UNION PUBLICATIONS.

Bulletin of the Pan American Union:

(An illustrated monthly magazine.) Carefully illustrated with halftone engravings, printed on high-class paper, equally suited to the library table or business desk, giving in attractive, readable, and reliable form that class of information, descriptive, commercial, general, and specific, which is desired by all classes of persons interested in Pan American progress and development. It is published monthly in four editions, one entirely in English for circulation in the United States and other English-speaking countries, the others in Spanish, Portuguese, and French for circulation in Latin America, Europe, etc.

Subscription rates, Bulletin of the Pan American Union:

English edition, in all countries of the Pan American Union, \$2.50 per year.

Spanish edition, in all countries of the Pan American Union, \$2 per year.

Portuguese edition, in all countries of the Pan American Union, \$1.50 per year.

French edition, in all countries of the Pan American Union, 75 cents per year.

All four editions, in all countries of the Pan American Union, \$5.25 per year.

An additional charge of 75 cents per year on each edition for subscriptions in countries outside the Pan American Union.

Mining and tariff laws:

22. Argentine Tariff Law, English translation edited and published by the Pan American Union, February, 1911, price, 25 cents.

For free distribution (under certain conditions):

The Pan American Union has for free distribution a limited supply of the following publications; but in view of the overwhelming demand for many of them and the cost of printing, it has been found necessary to make a new regulation, that all requests for such matter must be made through, or with the approval of, a United States Senator or Member of Congress, except in the case of applications from foreign countries, which should be made through the embassies or legations in Washington or through the home foreign offices. Requests should be made only for those publications that are absolutely needed, as the number of publications that may be sent to any one applicant is restricted.

Bibliographical Bulletins:

21. Latin American History and Description. List of books in the Columbus Memorial Library of the Pan American Union. November 1, 1907. 98 pages, 8°.

— Same. Supplement No. 1. November 1, 1907, to July 8, 1909, 34 pages, 8°.

— Same. Supplement No. 2. July 9, 1909, to June 1, 1914, 136 pages.

General data:

165. Latin American Civilization, A Glance at. By Francisco J. Yanes, Assistant Director and Secretary of the Governing Board of the Pan American Union. Reprinted from the Journal of Race Development, April, 1914. 20 pages.

161. Latin American, Contrasts in the Development of Nationality in the Angloand. Address delivered by Frederico A. Pezet, ex-minister of Peru, before the Anthropological Society. 16 pages.

232. Latin American Foreign Trade as Affected by the War. 12 pages; diagrams. Reprinted from the Bulletin of the Pan American Union, January, 1918.
242. Latin American Trade. A Comparative Survey. 20 pages reprinted from Bulletin of the Pan American Union, December, 1918.
204. Latin American Trade. Foreign Trade in 1917. A general survey.
- Maps:
145. Latin America, Showing Railroads of, in Operation and under Construction. Prepared by the Pan American Union. 1913. Size 16 by 21 inches.
- Miscellaneous:
- Rosario, Argentina's Second City. Reprinted from the August (1918) Bulletin of the Pan American Union.
- Special data by countries:
72. (a) Argentina. General descriptive data. Illustrated.
128. (a) Argentina, Commerce of, for 1917.
85. Argentine International Trade. A Few Figures on Its Development. Compiled by Division of Commerce and Industry. 64 pages. Buenos Aires, 1915.
141. Argentine Republic, Land in the. Including homestead law of September 28, 1917.
404. El "Veraneo" en la Argentina. 12 pages; illustrated. (In Spanish.)
405. The Argentine Universities. 8 pages; illustrated. (In Spanish.)
443. General descriptive data, Argentina.
- (A complete "list of publications" is published and distributed by the Pan American Union, Washington, D. C.)

REFERENCE BOOKS.

- Aughinbaugh, W. E., Md., LV. B., LV. M., "Selling Latin America." (Small, Maynard & Co., Boston, 1915). 408 pages.
- Filsinger, Ernest B., "Exporting to Latin America." A handbook for merchants, manufacturers, and exporters. (D. Appleton & Co., New York, 1916.) 565 pages.
- Fraser, John Foster, "The Amazing Argentine." With 48 plates from photographs. (Funk & Wagnalls Co., New York.) 291 pages.
- *Halsey, Frederic M., "Railway Expansion in Latin America." The Argentine Republic, pages 7-31. (The Moody Magazine & Book Co., 1916.) 170 pages.
- *Halsey, Frederic M., "The Railways of South and Central America." A manual containing statistics and other information concerning the information about the important railways of South and Central America, Mexico, and the West Indies. 1914 edition. (Francis Emory Fitch (Inc.), publishers to the American Banker, 47 Broad Street, New York.) 183 pages. Argentina, pages 9-34.
- *Hammerton, J. A., "The Real Argentine." With numerous illustrations. (Dodd, Mead & Co., New York, 1916.) 453 pages.
- Hirst, W. A., "Argentina." With an introduction by Martin Hume, M. A. With a map and 64 illustrations. (T. Fisher Unwin, Adelphi Terrace, London. First edition, 1910. Fourth impression, 1914.) 306 pages.
- Koebel, W. H., "British Exploits in South America." A history of British activities in exploration, military adventure, diplomacy, science, and trade, in Latin America. Illustrated with photographs and old prints. (The Century Co., New York, 1917.) 587 pages.
- *Martinez, Albert B. and Lewandowski, Maurice, "The Argentine of the Twentieth Century." (T. Fisher Unwin, Adelphi Terrace, London, 1915.) 376 pages.
- *Mills, George J., "Argentina." With introduction by W. H. Koebel. Physical features, natural resources, means of communication, manufactures, and industrial development. (D. Appleton & Co., New York, 1914.) 209 pages.
- *Ross, Gordon, "Argentina and Uruguay." With 12 illustrations, 4 diagrams, and a map. (Macmillan Co., New York, 1916.) 308 pages.
- Stephens, Henry, A. B., Ph. D., "Illustrated Descriptive Argentina." Containing numerous illustrations. (Knickerbocker Press, New York, 1917.) 763 pages.
- Todd, John A., B. L., "The World's Cotton Crops." With 32 page illustrations and 16 maps and diagrams. (A. & C. Black (Ltd.), 4, 5, and 6 Soho Square, London, W., 1915.) 460 pages.
- *"Twentieth Century Impressions of Argentina." Its history, people, commerce, industries, and resources. (Lloyd's Greater Britain Publishing Co. (Ltd.), 1911.) Numerous illustrations. 850 pages.

UNITED STATES GOVERNMENT PUBLICATIONS (OFFICIAL).

***Agriculture Department:**

Yearbook of the United States Department of Agriculture, 1918. (Government Printing Office, Washington, 1918.) 853 pages.

Commerce Department:

Bureau of Foreign and Domestic Commerce publications:

The special publications of the bureau are divided into four groups: (1) Special Agents Series, which comprises monographs on special industries and special phases of commerce, prepared by the special agents; (2) Special Consular Reports; (3) Foreign Tariff Series; (4) Miscellaneous Series.

The bulk of the information relating to foreign markets for American goods is obtained from the Consular Service, the traveling special agents, and the commercial attachés. The statistics of American trade with foreign countries are collected at American customhouses in cooperation with the Treasury Department.

Copies of the publications listed may usually be obtained for the price stated by writing to the district offices of the bureau or to the Superintendent of Documents, Government Printing Office, Washington, D. C. The cooperative offices have copies for those who call in person, but do not sell by mail.

Branch offices of the Bureau of Foreign and Domestic Commerce:

District offices:

New York, 734 United States Customhouse.
 Boston, 1801 United States Customhouse.
 Chicago, 1424 First National Bank Building.
 St. Louis, 402 Third National Bank Building.
 New Orleans, 1020 Hibernia Bank Building.
 San Francisco, 307 United States Customhouse.
 Seattle, 848 Henry Building.

Cooperative offices:

Cincinnati, Chamber of Commerce.
 Cleveland, Chamber of Commerce.
 Los Angeles, Chamber of Commerce.
 Philadelphia, Chamber of Commerce.
 Portland, Oreg., Chamber of Commerce.
 Dayton, Chamber of Commerce.

Classification by subjects—**Agricultural implements and machinery:**

Markets for Agricultural Implements and Machinery in Argentina, by Frank H. von Motz. Special Agents Series No. 125; 1916; 86 pages. Price, 10 cents.

Banking and credits:

Banking and Credit in Argentina, Brazil, Chile, and Peru, by E. N. Hurley. Special Agents Series No. 90; 1914; 72 pages. A study of the relations of banks and banking to trade in South America. Price, 10 cents.

Financial Developments in South American Countries, by William H. Lough. Special Agents Series No. 103; 1915; 42 pages. Price, 5 cents.

Banking Opportunities in South America, by William H. Lough. Special Agents Series No. 106; 1915; 156 pages. A report on the opportunities in South America for establishing American banking institutions, now that our banks are permitted by law to have branches in foreign countries. Price, 20 cents.

Canned goods:

*South American Trade in Canned Goods, by E. A. Thayer. Special Agents Series No. 87; 1914; 36 pages. Out of print.

Coal:

Coal Trade in Latin America. Special Consular Reports No. 43, part 1; 1910; 32 pages. Contains reports on the trade in Mexico, the West Indies, and Central and South America, presenting information as to volume and values of trade, sources of supplies, prices, methods of handling, etc. Price, 5 cents.

Commerce Reports:

Commerce Reports (daily consular and trade reports), published daily, with supplements containing annual reviews of trade by the consuls covering every country of the world. Price, \$2.50 per year, or \$6 for the four quarterly volumes bound in cloth with index, but without supplements. Single copies of the daily, 5 cents.

Commerce Department—Continued.

Bureau of Foreign and Domestic Commerce publications—Continued.

Classification by subjects—Continued.

Cooking fats:

Cooking Fats in South America. Special Consular Reports No. 67; 1915; 15 pages. Review of the South American trade in such cooking fats as lard, tallow, and vegetable oils. Price, 5 cents.

Cotton and cotton goods:

Cotton Goods in Latin America, Part III—Argentina, Uruguay, and Paraguay, by W. A. Graham Clark. Special Agents Series No. 40; 1910; 52 pages. Exhausted.

Drugs, patent medicines, etc.:

South American Markets for Drug Products, Patent and Proprietary Medicines, Surgical Instruments, and Dental Supplies, by E. A. Thayer. Special Agents Series No. 85; 1914; 75 pages. Price, 10 cents.

Fruit:

South American Markets for Fresh Fruits, by Walter Fischer. Special Agents Series No. 131; 1917; 163 pages. Countries covered are Brazil, Argentina, Uruguay, Paraguay, Peru, and Chile. Price, 25 cents.

South American Markets for Dried Fruits, by Walter Fischer. Special Agents Series No. 148; 1917; 35 pages. Price, 5 cents.

General trade conditions:

Trade Development in Argentina, by James Davenport Whelpley. Special Agents Series No. 43; 1911; 94 pages. Devoted principally to two subjects—sea-transport service of Argentina and the meat production and export. To this are added notes on the market for various American products and on the Argentine Centennial Exposition and the progress of agriculture. Price, 10 cents.

South America as an Export Field, by Otto Wilson. Special Agents Series No. 81; 1914; 216 pages. Gives in condensed form such information as to the character, extent, resources, and trade of South American countries as will enable manufacturers and exporters not familiar with conditions in that field to determine, in part, the most favorable markets for their goods. Price, 25 cents.

Consular Recommendations on South American Trade. Miscellaneous Series No. 20; 1914; 29 pages. Reprint of articles first appearing in the Daily Consular and Trade Reports. Embodies chief recommendations of consular officers as to the methods best adapted to increasing the trade of the United States in South America. Price, 5 cents.

Statements on the Latin American Trade Situation. Miscellaneous Series No. 18; 1914; 39 pages. A report on the statements made by representatives of Latin American countries at a conference held before the Secretary of State and the Secretary of Commerce, at Washington, D. C., September 10, 1914, dealing especially with unusual situations arising from the outbreak of war in Europe. Price, 5 cents.

Hardware:

Markets for American Hardware in Argentina, Uruguay, and Paraguay, by Albert Hale. Miscellaneous Series No. 43; 1916; 64 pages. Price, 10 cents.

Investments:

Investments in Latin America and British West Indies, by Frederic M. Halsey. Special Agents Series No. 169; 1918. Price, 50 cents.

Lumber:

Lumber Markets of the East Coast of South America, by R. E. Simmons. Special Agents Series No. 112; 1916; 121 pages. Price, 25 cents.

Machinery and machine tools:

Machine Tools in Latin America. Special consular reports No. 58; 1913; 32 pages. Price, 5 cents.

Markets for Machinery and Machine Tools in Argentina, by J. A. Massel. Special Agents Series No. 116; 1916; 64 pages. Price, 20 cents.

Motor vehicles:

Argentine Market for Motor Vehicles, by David Beecroft. Miscellaneous Series No. 62; 1917; 27 pages. Price, 5 cents.

Paper:

Paper, Paper Products, and Printing Machinery in Argentina, Uruguay, and Paraguay, by R. S. Barrett. Special Agents Series No. 163; 1918; 165 pages. Price, 20 cents.

Commerce Department—Continued.

Bureau of Foreign and Domestic Commerce publications—Continued.

Classification by subjects—Continued.

Shoe and leather trade:

Shoe and Leather Trade in Argentina, Chile, Peru, and Uruguay, by Arthur B. Butman. Special Agents Series No. 37; 1910; 72 pages. Out of print.

Boots and Shoes, Leather, and Supplies in Argentina, Uruguay, and Paraguay, by Herman G. Brock. Special Agents Series No. 177; 1919; 182 pages. Price, 25 cents.

Soap:

South American Market for Soap. Special Consular Reports No. 66; 1915; 16 pages. Price, 5 cents.

Tanning materials:

Tanning Materials of Latin America, by Thomas H. Norton. Special Agents Series No. 165; 1918; 32 pages. Surveys the tannin-bearing plants and trees in South and Central America and Mexico, and reveals the resources these countries, thus far only slightly exploited, for meeting the increasing demands for tanning materials. Price, 5 cents.

Tariffs:

The following publications concerning the tariffs of foreign countries may be had from the Superintendent of Documents and the district and cooperative offices of the Bureau of Foreign and Domestic Commerce at the prices indicated. Tariffs, of course, are subject to more or less frequent changes, and old publications on the subject are of little value. This list includes only such bulletins as were still authoritative when the catalogue was sent to press.

Tariff Series:

No. 24. Consular Regulations of Foreign Countries: Canada and Latin America (revised edition); 1915. Price, 10 cents.

No. 31. Registration of Trade-marks in Latin America; 1916. Free.

No. 32. Import Duties on Textiles in South America; Part I—Argentina; 1916. Price, 5 cents.

No. 34. Tariff Systems of South American Countries. 1916. Price, 25 cents.

No. 35. Commercial Travelers in Latin America; 1916. Price, 10 cents.

Wearing apparel:

Wearing Apparel in Argentina, by Lew B. Clark. Miscellaneous Series No. 68; 1918; 158 pages. Price, 20 cents.

Miscellaneous:

*Foreign Commerce and Navigation of the United States. By articles and countries. Containing summary, tables of foreign commerce and statistical tables of foreign commerce of the United States. Issued annually by the Bureau of Foreign and Domestic Commerce.

*Navy Department, Port Directory of the Principal Foreign Ports. Office of Naval Intelligence, 1911. (Government Printing Office, Washington, 1911.)

Treasury Department:

*Annual Report of the Director of the Mint for the Fiscal Year ended June 30, 1918, including report on the Production of the Precious Metals during the Calendar Year 1917. (Government Printing Office, Washington, 1918.) 259 pages. Argentina, pages 171-174, 244.

*Proceedings of the First Pan American Financial Conference Convened by Authority of the Congress of the United States under the direction of Hon. William G. McAdoo, Secretary of the Treasury. Washington, May 24-29, 1915. Published by the Government Printing Office, Washington, 1915. 744 pages.

YEAR BOOKS.

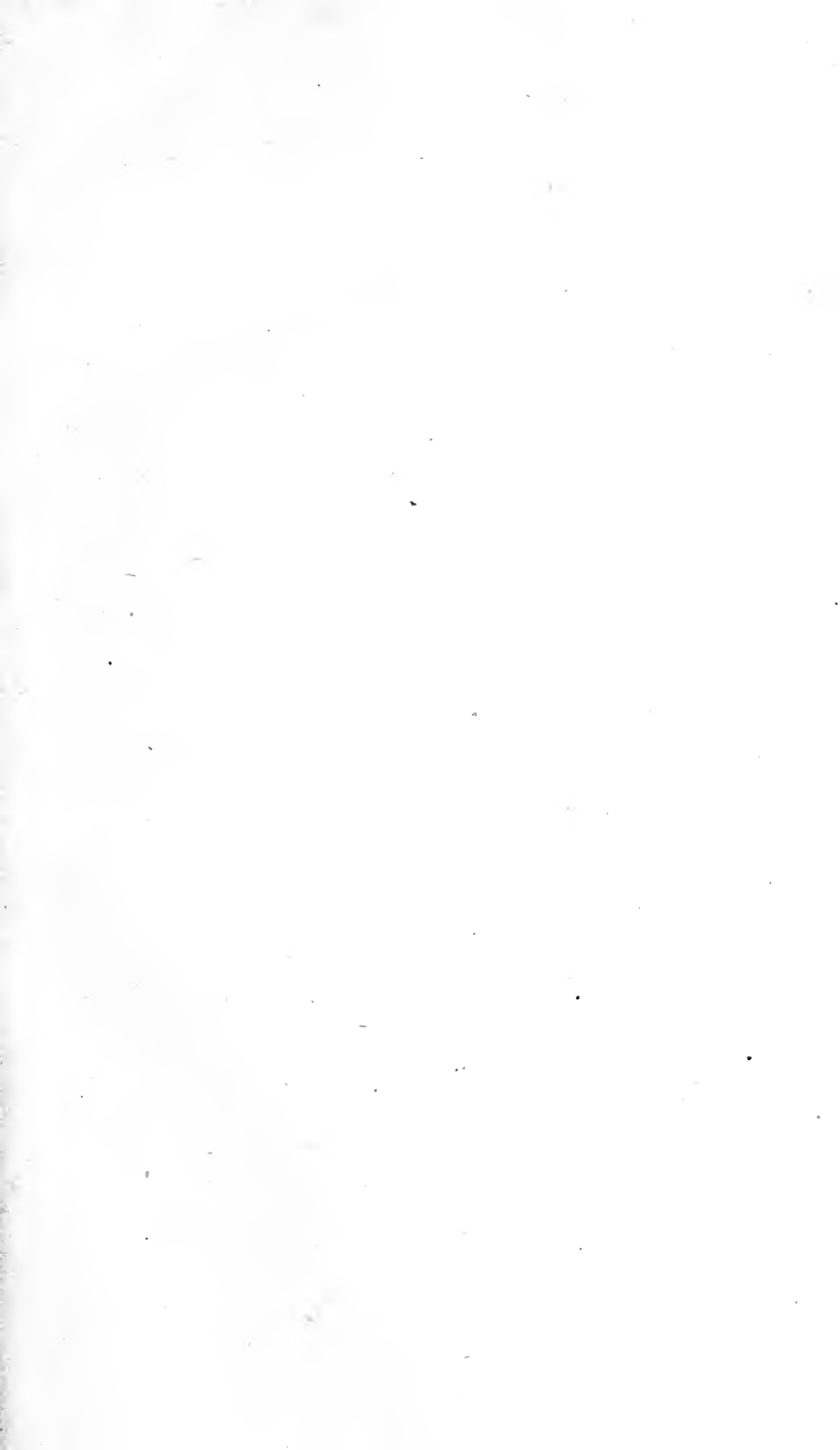
*American Year Book, 1918. Edited by Francis G. Wickware, B. A., B. Sc., with cooperation of a supervisory board representing National Learned Societies (D. Appleton & Co., New York and London, 1919). 850 pages. Argentina, page 123.

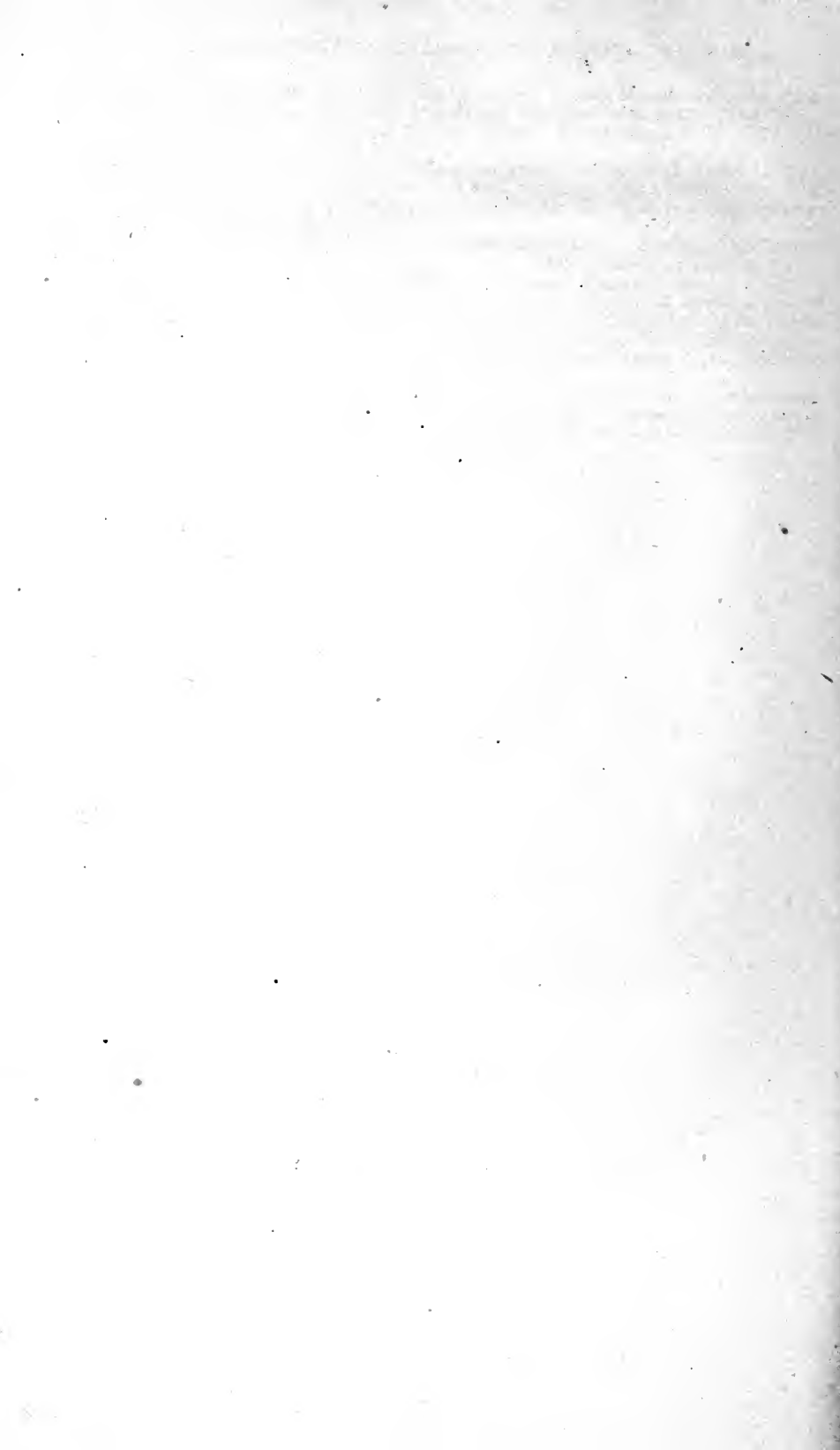
*Argentine Year Book, 1915-1916 (tenth) edition. (Robert Grant & Co., Calle Cangallo 542, Buenos Aires), U. S. A. Agents: Donnell & Palmer, Whitehall Building, 17 Battery Place, New York. 406 pages.

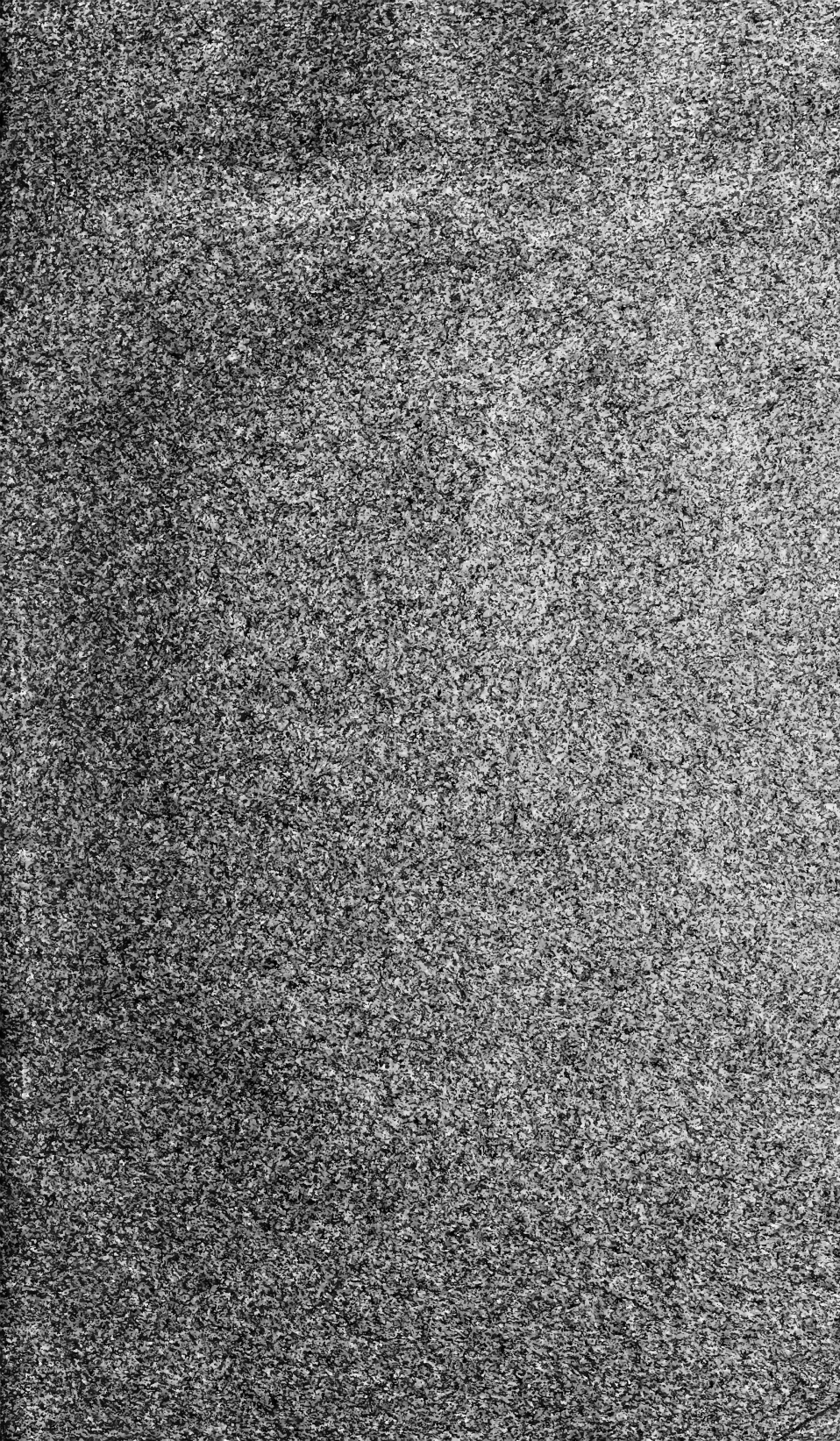
*Latin American Year Book for Investors and Merchants for 1913-1919. (Criterion Newspaper Syndicate (Inc.), New York.) 1919 edition contains 552 pages; Argentina, pages 9-66.

- *"Shipping World" Year Book and Port Directory: A Desk Manual in Trade, Commerce, and Navigation. Edited by Major Evan Rowland Jones, 1913. (The "Shipping World" Offices, Effingham House, Arundel Street, Strand, W. C.) 1848 pages. Argentina, pages 1077-1081.
- *South American Year Book and Directory (incorporating the South American Railway Year Book, South American Annual, and South American Blue Book). 1915. (Louis Cassier Co. (Ltd.), 33 Bedford Street, Strand, London, W. C.) Giving railway, political, and general information.
- *Statesman's Year Book, 1918 (fifty-fifth annual publication). Statistical and historical annual of the States of the world for the year 1918. (Macmillan and Co. (Ltd.), St. Martin's Street, London.) 1488 pages. Argentina, pages 638-648.
- *Stock Exchange Year Book for 1916. (Forty-second edition.) A careful digest of information relating to the origin, history, and present position of each of the public securities and joint-stock companies known to the markets of the United Kingdom. (Thomas Skinner & Co., 76-81, Gresham House, Old Broad Street, E. C., London.) 2278 pages.
- *Industrial Union of Argentina: An organization composed of the manufacturers, exporters, and merchants of Argentina for the purpose of increasing the resources of Argentina. The Boletín de la Unión Industrial Argentina (Calle Bolívar, 260) is published monthly in Buenos Aires by this Union.









14 DAY USE

RETURN TO DESK FROM WHICH BORROWED
LOAN DEPT.

This book is due on the last date stamped below, or
on the date to which renewed.

Renewed books are subject to immediate recall.

13 Mar 58 <i>part of dept</i>	
APR 13 1958	AUG 17 1967 5 0
REC'D LD	REC'D
APR 7 1958	AUG 31 '67 6 PM
	LOAN DEPT.
15 DEC '60 RT	
IN STACKS	
DEC 3 1960	
	REC. CIR. FEB 20 '66
MAR 15 1967 1	
MAR 15 67 4 PM	
	MAR 18 1967

LD 21A-50m-8, '57
(C8481s10)476B

General Library
University of California
Berkeley

Binder
Brothers, Inc.
Makers
Stockton, Calif.
PAT. JAN. 21, 1908

Y.C 80178

719701
112
UNIVERSITY OF CALIFORNIA LIBRARY

