

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1997

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from filming / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments / Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary material / Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image / Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.
- Opposing pages with varying colouration or discolourations are filmed twice to ensure the best possible image / Les pages s'opposant ayant des colorations variables ou des décolorations sont filmées deux fois afin d'obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10x		14x		18x		22x		26x		30x	
							✓				
	12x		16x		20x		24x		28x		32x

The copy filmed here has been reproduced thanks to the generosity of:

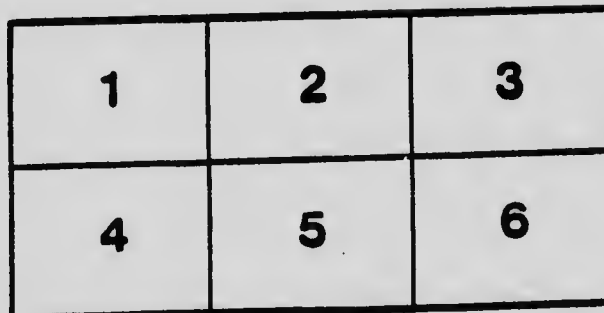
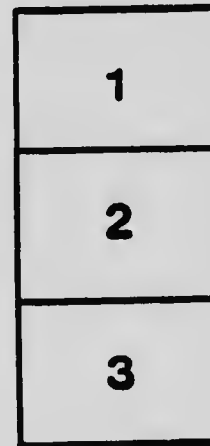
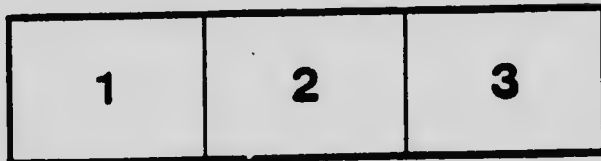
National Library of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche sheet contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Bibliothèque nationale du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

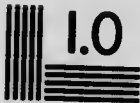
Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



1.45
1.50

2.8

2.5

1.56
1.63

3.2

2.2

1.71
1.80

3.6

2.0



1.85
1.95
2.05

4.0

1.8



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York, 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

497
Carnegie Endowment for International Peace

DIVISION OF ECONOMICS AND HISTORY

1000 NINTH AVENUE, NEW YORK

PRELIMINARY ECONOMIC STUDIES OF THE WAR

THE EARLY EFFECTS OF THE EUROPEAN
WAR UPON THE TRADES OF COMMERCE,
AND THE MONEY MARKET

NEW YORK

OXFORD UNIVERSITY PRESS

AMERICAN BRANCH: 25 West 34th Street

LONDON, TORONTO, MELBOURNE, AND BOMBAY

1918

Library of Parliament



Carnegie Endowment for International Peace

DIVISION OF ECONOMICS AND HISTORY

JOHN BATES CLARK, DIRECTOR

PRELIMINARY ECONOMIC STUDIES OF THE WAR

EDITED BY

DAVID KINLEY

*Professor of Political Economy, University of Illinois
Member of Committee of Research of the Endowment*

**THE EARLY EFFECTS OF THE EUROPEAN
WAR UPON THE FINANCE, COMMERCE,
AND INDUSTRY OF CHILE**

BY

L. S. ROWE

*Professor of Political Science, University of
Pennsylvania*

NEW YORK

OXFORD UNIVERSITY PRESS

AMERICAN BRANCH: 35 WEST 32ND STREET

LONDON, TORONTO, MELBOURNE, AND BOMBAY

1918

HC192

R68

1912

P***

COPYRIGHT 1918

BY THE

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

2 JACKSON PLACE, WASHINGTON, D. C.

0 922043

INTRODUCTORY NOTE BY THE DIRECTOR

The Division of Economics and History of the Carnegie Endowment for International Peace is organized to "promote a thorough and scientific investigation of the causes and results of war." In accordance with this purpose a conference of eminent statesmen, publicists, and economists was held in Berne, Switzerland, in August, 1911, at which a plan of investigation was formed and an extensive list of topics was prepared. An elaborate series of investigations was undertaken, and, if the war had not intervened, the resulting reports might have been expected, before the present date, in printed form.

Of works so undertaken some aim to reveal direct and indirect consequences of warfare, and thus to furnish a basis for a judgment as to the reasonableness of the resort to it. If the evils are in reality larger and the benefits smaller than in the common view they appear to be, such studies should furnish convincing evidence of this fact and afford a basis for an enlightened policy whenever there is danger of international conflicts.

Studies of the causes of warfare reveal, in particular, those economic influences which in time of peace bring about clashing interests and mutual suspicion and hostility. They show what policies, as adopted by different nations, reduce the conflicts of interest, inure to the common benefit, and afford a basis for international confidence and good will. They tend, further, to reveal the natural economic influences which of themselves bring about more and more harmonious relations and tend to substitute general benefits for the mutual injuries that follow unintelligent self-seeking. Economic internationalism needs to be fortified by the mutual trust that just dealing creates; but just conduct itself may be

avored by economic conditions. These, in turn, may be created partly by a natural evolution and partly by the conscious action of governments; and both evolution and public action are among the important subjects of investigation.

An appeal to reason is in order when excited feelings render armed conflicts imminent; but it is quite as surely called for when no excitement exists and when it may be forestalled and prevented from developing by sound national policies. To furnish a scientific basis for reasonable international policies is the purpose of some of the studies already in progress and of more that will hereafter be undertaken.

The war has interrupted work on rather more than a half of the studies that were in progress when it began, but it has itself furnished topics of immediate and transcendent importance. The costs, direct and indirect, of the conflict, the commercial policies induced by it and, especially, the direct control which, because of it, governments are now exercising in many spheres of economic activity where formerly competition and individual freedom held sway, are phenomena that call, before almost all others, for scientific study. It is expected that most of the interrupted work will ultimately be resumed and that, in the interim before this occurs, studies of even greater importance will be undertaken and will be pushed rapidly toward completion.

The publications of the Division of Economics and History are under the direction of a Committee of Research, the membership of which includes the statesmen, publicists, and economists who participated in the Conference at Berne in 1911, and two who have since been added. The list of members at present is as follows:

EUGENE BOREL, Professor of Public and International Law in the University of Geneva.

LUJO BRENTANO,¹ Professor of Economics in the University of Munich; Member of the Royal Bavarian Academy of Sciences.

¹ Membership ceased April 6, 1917, by reason of the declaration of a state of war between the United States and the Imperial German Government.

INTRODUCTORY NOTE BY THE DIRECTOR v

CHARLES GIDE, Professor of Comparative Social Economics in the University of Paris.

H. B. GREVEN, Professor of Political Economy and Statistics in the University of Leiden.

FRANCIS W. HIRST, London.

DAVID KINLEY, Professor of Political Economy in the University of Illinois.

HENRI LA FONTAINE, Senator of Belgium.

His Excellency **LUIGI LUZZATTI**, Professor of Constitutional Law in the University of Rome; Secretary of the Treasury, 1891-93; Prime Minister of Italy, 1908-11.

GOTARO OGAWA, Professor of Finance at the University of Kioto, Japan.

SIR GEORGE PAISH, London.

MAFFEO PANTALEONI, Professor of Political Economy in the University of Rome.

EUGEN PHILIPPOVICH VON PHILIPPSBERG,¹ Professor of Political Economy in the University of Vienna; Member of the Austrian Herrenhaus, Hofrat.

PAUL S. REINSCH, United States Minister to China.

His Excellency **BARON Y. SAKATANI**, formerly Minister of Finance.

THEODOR SCHIEMANN,² Professor of the History of Eastern Europe in the University of Berlin.

HARALD WESTERGAARD, Professor of Political Science and Statistics in the University of Copenhagen.

FRIEDRICH FREIHERR VON WIESEB,³ Professor of Political Economy in the University of Vienna.

The function of members of this Committee is to select collaborators competent to conduct investigations and present reports in the form of books or monographs; to consult with these writers as to plans of study; to read the completed manuscripts, and to inform the officers of the Endowment whether they merit publica-

¹ Died, June, 1917.

² Membership ceased April 6, 1917, by reason of the declaration of a state of war between the United States and the Imperial German Government.

³ Membership ceased December 7, 1917, by reason of the declaration of a state of war between the United States and Austria-Hungary.

vi INTRODUCTORY NOTE BY THE DIRECTOR

tion in its series. This editorial function does not commit the members of the Committee to any opinions expressed by the writers. Like other editors, they are asked to vouch for the usefulness of the works, their scientific and literary merit, and the advisability of issuing them. In like manner the publication of the monographs does not commit the Endowment as a body or any of its officers to the opinions which may be expressed in them. The standing and attainments of the writers selected afford a guarantee of thoroughness of research and accuracy in the statement of facts, and the character of many of the works will be such that facts, statistical, historical, and descriptive, will constitute nearly the whole of their content. In so far as the opinions of the writers are revealed, they are neither approved nor condemned by the fact that the Endowment causes them to be published. For example, the publication of a work describing the attitude of various socialistic bodies on the subject of peace and war implies nothing as to the views of the officers of the Endowment on the subject of socialism; neither will the issuing of a work, describing the attitude of business classes toward peace and war, imply any agreement or disagreement on the part of the officers of the Endowment with the views of men of these classes as to a protective policy, the control of monopoly, or the regulation of banking and currency. It is necessary to know how such men generally think and feel on the great issue of war, and it is one of the purposes of the Endowment to promote studies which will accurately reveal their attitude. Neither it nor its Committee of Research vouches for more than that the works issued by them contain such facts; that their statements concerning them may generally be trusted, and that the works are, in a scientific way, of a quality that entitles them to a reading.

JOHN BATES CLARK,
Director.

**THE EARLY EFFECTS OF THE EUROPEAN
WAR UPON THE FINANCE, COMMERCE,
AND INDUSTRY OF CHILE**



EDITOR'S PREFACE

THIS study of the first effects of the European War on Chile was made by Dr. L. S. Rowe, of the University of Pennsylvania, who spent two months in the country for the purpose. Dr. Rowe needs no introduction. He is well known in both North and South America and has been long recognized as an authority on Pan American relations and policy. His knowledge of the people and the language of Chile makes it peculiarly fitting for him to prepare such a report.

Dr. Rowe's study shows that trade, transportation, labor conditions, and finance in Chile all suffered. As Dr. Rowe remarks, "The widespread suffering caused throughout Chile by reason of the European conflict is but another indication of how deeply the vital interests of the republics of America have been affected. Not only were government finances seriously impaired but almost every branch of industrial life suffered a severe shock."

While it is true that the European War at its outbreak produced serious effects on the economic life of Chile, as, indeed, of other South American countries, some of the evil results were soon overcome. Moreover, some of the immediate effects of the war were good rather than bad. In all cases we find reported, at first, stoppage of industry, trade and commerce, and disorganization of finance and labor. But readjustment soon took place, in some cases on a healthier basis. Bad credit practices have been destroyed; desirable retrenchment in public expenditures has been in some cases enforced. Trade losses in one direction have been made up in many instances by gains in other directions; and,

in some cases perhaps, more natural routes and relations have been established. Some of these advantages will undoubtedly be lasting.

Very likely some of the main currents of trade will be permanently altered and domestic industry will undoubtedly be stimulated. In so far as this stimulation leads to greater use at home of the immense natural resources of South American countries it will be a benefit to their people as well as to the rest of the world.

It is believed that this study, in spite of the fact that it was written two and one-half years ago, will be of interest in connection with that by Señor Vildesola on *Chile and the European War*, published by the Endowment in its Division of Intercourse and Education. The reader must remember that it was written soon after the outbreak of the European War and that the figures are those of that period. It is believed, however, that the material will be of value as indicating the immediate effect at the outbreak of the war on the commerce, finances, and industries of Chile.

DAVID KINLEY,
Editor.

FOREWORD

THE material contained in this report was collated during the course of a visit to Chile in the summer of 1915. The purpose of the Carnegie Endowment was to secure a series of studies setting forth the effect of the European War on certain of the countries of South America. It is important in reading this report to bear in mind that its purpose is to explain the immediate effects of the outbreak of the European War on the finances, commerce and industry of Chile. The report was submitted to the Endowment late in 1915. The period that has elapsed since its preparation has witnessed marked changes in the financial and industrial situation of Chile. The rapid rise in the price of nitrate and copper has brought these industries to the highest level of prosperity. The situation in 1918 is in marked contrast with that which prevailed immediately after the outbreak of the war.

L. S. ROWE.

*University of Pennsylvania,
February, 1918.*

43

CONTENTS

CHAPTER	PAGE
I. THE ECONOMIC AND PHYSICAL BACKGROUND	1
A. THE NITRATE AND MINERAL REGION OF THE NORTH	3
B. THE AGRICULTURAL CENTRAL DISTRICT	5
C. THE SOUTHERN DISTRICT	8
II. THE INDUSTRIAL, COMMERCIAL, AND FINANCIAL SITUATION IMMEDIATELY PRECEDING THE WAR	9
III. EFFECT OF THE WAR ON NATIONAL FINANCES	11
IV. EFFECT OF THE WAR ON CURRENCY AND BANKING	18
V. EFFECT OF THE WAR ON COMMERCE AND INDUSTRY	25
THE COPPER INDUSTRY	28
AGRICULTURE	29
DOMESTIC AND INTERNATIONAL TRADE .	29
EMERGENCY MEASURES ADOPTED TO ENABLE MERCHANTS TO MEET CONDITIONS CREATED BY THE WAR	32
TRANSPORTATION FACILITIES AS AFFECTED BY THE WAR	34
LABOR CONDITIONS AS AFFECTED BY THE WAR	37
CONCLUSION	47
APPENDICES	51



THE EARLY EFFECTS OF THE EUROPEAN WAR UPON THE FINANCE, COMMERCE, AND INDUSTRY OF CHILE

CHAPTER I

THE ECONOMIC AND PHYSICAL BACKGROUND

THE economic and financial condition of Chile before and after the outbreak of the European War can best be understood by keeping constantly in mind the peculiar conditions of physical environment which have given to the country an exceptional position amongst the South American republics.

In physical conformation, Chile is a long, narrow country stretching from latitude $17^{\circ} 15'$ south to $55^{\circ} 59'$ south, a distance of 2,535 miles. Compared with its enormous coast line, the country is exceedingly narrow, ranging from a width of 102 miles (latitude $31^{\circ} 30'$) to 210 miles (latitude $46^{\circ} 30'$). The population is massed in the central district, the far southern section being practically uninhabited and the population of the arid northern district being limited to the mining population of the nitrate, copper, iron, and borax fields. Inasmuch as there is little immigration into Chile, the increase of population is due almost entirely to the excess of births over deaths. It is true that the nitrate fields of the North attract a certain number of Bolivian laborers, but their number remains fairly constant, diminishing somewhat in periods of depression and increasing in periods of prosperity.

THE EARLY EFFECTS OF

The growth of population in Chile has been as follows:

1835.....	1,010,332	1885.....	2,527,300
1843.....	1,083,801	1895.....	2,712,145
1854.....	1,439,120	1907.....	3,249,279
1865.....	1,819,223	1913.....	3,351,703
1875.....	2,075,971	1914.....	3,596,541

The distribution of population among the twenty-four provinces of the Republic is as follows:

Provinces	Area in square kilometers	1907		1912		Total increase	Increase per year per 1000 inhabitants
		Population	Population per square kilometer	Population	Population per square kilometer		
Tacna	23,958	28,748	1.2	44,291	1.8	15,543	70.9
Tarapacá	46,957	110,036	2.3	119,714	2.5	9,678	16.2
Antofagasta	120,718	113,323	0.9	122,354	1.0	9,031	14.8
Atacama	79,585	63,968	0.8	65,875	0.8	1,907	5.8
Coquimbo	34,862	175,021	5.0	181,242	5.2	6,221	6.9
Aconcagua	14,210	126,486	9.0	135,558	9.5	7,072	10.4
Valparaíso	5,059	281,385	55.6	311,809	61.6	30,424	19.5
Santiago	14,672	516,870	35.2	566,787	38.6	49,917	17.6
O'Higgins	6,066	92,339	15.2	95,524	15.7	3,185	6.7
Colchagua	9,948	159,030	15.9	159,676	16.0	646	0.8
Curicó	7,714	107,095	13.8	108,791	14.1	1,696	3.1
Talca	9,948	131,957	13.2	133,235	13.4	1,278	1.9
Linares.....	10,210	109,363	10.7	113,365	11.1	4,002	7.1
Maule	6,410	110,316	17.2	119,107	18.6	8,791	14.8
Nuble	8,823	166,245	18.8	172,244	19.5	5,999	7.0
Concepción	8,422	216,994	25.8	230,442	27.4	13,448	11.7
Arauco	6,366	61,538	9.6	62,732	9.8	1,194	3.8
Bíobío.....	13,587	97,968	7.2	102,170	7.5	4,202	8.2
Mendoza	7,701	109,775	14.2	115,177	14.9	5,402	9.4
C. Ant.	15,105	139,553	9.2	166,895	11.0	27,342	32.8
Valdivia	21,637	118,277	5.5	141,298	6.5	23,021	32.6
Llanquihue	91,676	105,043	1.1	118,973	1.3	13,930	23.4
Chiloé	22,255	88,619	4.0	93,684	4.2	5,065	10.8
Magallanes	171,438	17,330	0.1	24,374	0.1	7,044	57.8
	757,366	3,249,279	4.3	3,505,317	4.6	256,038	14.6

The laboring population of Chile is, in the main, a mixture of Spanish and Indian blood, whereas the ruling classes are white, of pure Spanish descent.

For purposes of study, the country may best be divided into three zones:

- (a) The nitrate and mineral region of the North.
- (b) The agricultural central district, which also contains important mineral deposits.
- (c) The vast southern region stretching southward from the Island of Chiloé to the Magellan district which is, as yet, practically uninhabited and whose resources are almost untouched.

A. THE NITRATE AND MINERAL REGION OF THE NORTH

The *salitre* of Chile or Chilean saltpeter (chemically, sodium nitrate [Na NO_3]) is found in the district from the Camerones River in the North to Caldera in the South.¹ The nitrate area is, roughly speaking, about 450 miles in length, in an arid region. The deposits are found at from fourteen to twenty miles from the coast at elevations varying from 2,200 to 7,500 feet above sea-level.²

The importance of nitrate as a national product is readily seen from the fact that it represents nearly eighty per cent in value of the total exports of Chile.

The growth of nitrate production has been as follows:

Year	Amount in Metric Tons
1879.....	59,344
1889.....	951,372
1899.....	1,389,822
1900.....	2,110,961
1910.....	2,465,415
1911.....	2,521,023
1913.....	2,585,850
1914.....	2,463,356

In 1913 the nitrate output represented about eighty per cent of the total mineral product of the country. Although nitrate is by far the most important product of this northern district, other mineral products of

¹ See *South America as an Export Field*, by Otto Wilson, U. S. Bureau of Foreign and Domestic Commerce, 1914.

² See Strauss, *The Chilean Nitrate Industry*, Mining and Scientific Press, San Francisco, Cal., 1914.

THE EARLY EFFECTS OF

importance are found in the same region. Of these copper ranks first. Iron and borax are found also in considerable quantities. It is to be noted, however, that these minerals are found not only in the northern section but in the central agricultural districts as well. Inasmuch as the most important nitrate fields did not come under Chilean jurisdiction until after the Peruvian War of 1879, as a result of the annexation of the Peruvian provinces of Tarapaca and Atacama and of the Bolivian province of Antofagasta, the preponderant position of nitrate is a matter of the last thirty years.

The most accurate estimate¹ indicates that during the century 1810-1910 the total production of minerals in Chile was \$2,463,500,000. This total was made up as follows:

Nitrate	\$1,235,300,000
Copper	664,292,000
Silver	298,695,000
Coal	114,516,000
Gold	68,084,000
Other Minerals	82,613,000

The latest available official statistics indicate the mineral production in 1913 and 1914 as follows:

Product	1913	1914
Nitrate of soda.....	\$119,554,485	\$106,232,227
Copper	11,389,315	11,790,522
Coal	9,144,580	8,152,095
Borax	2,636,835	1,675,117
Iodine	1,925,400	2,154,444
Silver	523,875	448,757
Chalk	313,710	.....
Sulphur	299,115	450,360
Gold	286,680	208,320
Salt	51,695	325,562
Iron Ore	102,750	476,292
Lime	69,040	² 304,127
Lead	2,370	2,063
Zinc	405	65
Total	\$146,508,255	\$132,219,921

¹ See Wilson, *op. cit.*, p. 110.

² Including figures for chalk.

B. THE AGRICULTURAL CENTRAL DISTRICT

While the peculiar physical conformation of Chile means a relatively restricted arable area, the importance of the agricultural interests is such as to give to Chile the character of an agricultural country. In fact, prior to the annexation of the northern provinces in 1883, this was practically the exclusive interest of the country. In spite of this fact, but 1.6 per cent of the total area of the country is under cultivation, 3,047,000 acres out of a total of 187,148,000.¹ It is true that this area can be greatly extended, but in the north central section such extension involves the construction of extensive irrigation works. At present about 2,470,000 acres are under irrigation, but it is estimated that the irrigation system can readily be extended to nearly five million additional acres. A law passed December 9, 1914, authorizes the execution of four plans known as the Aconcagua, Maule, Melado, and Laja projects. The assent of the property owners affected has been received, but the financial crisis precipitated by the European War has temporarily postponed the execution of the plan. In the south central district, where the rainfall is adequate at all seasons, the greatest obstacle to more extended cultivation has been the absence of immigration. The Chilean agricultural laborer has, for generations, been kept in a condition of economic dependence. In addition to housing and a small ration of from one to two and one-fifth pounds of beans per day, his money wage ranges from twenty to forty cents per day. The depreciating paper currency of the country has served to make his lot more and more difficult. With a relatively low wage scale, the agricultural laborer is not in a position to become a small farmer. In fact, with the exception of relatively restricted sections in the provinces of Valdivia and Con-

¹ Wilson, *op. cit.*, p. 114.

THE EARLY EFFECTS OF

ception, the system of large landed estates prevails. These conditions have discouraged immigration.

In this section all the cereals and fruits of the temperate zone are cultivated, as well as some of the sub-tropical fruits, such as the orange and the lemon. Cattle raising is also an important factor in the wealth of the region. The growing of grapes for the making of wine has been for many years one of the leading industries of the central district. A little over 140,000 acres are now in vineyards. In 1912 the leading crops were as follows:

Cereals and Vegetables	Metric Tons
	1912
Wheat	615,023
Barley	70,786
Oats	49,065
Corn	38,774
Potatoes	262,795
Beans	45,000
Carrots	12,700
Alfalfa hay	262,795
Clover hay	10,050
Tobacco	2,303
Clover seed	720
Hemp fibre	272

In addition to the above products, it is essential to mention the lumber industry, which is yet in its infancy in Chile but which promises to assume great importance owing to the large quantities of excellent timber to be found in the provinces of Valdivia, Llanquihue, and on the Island of Chiloé. Furthermore, during the last twenty-five years apiculture has assumed large proportions. In 1912 there were 86,000 beehives in Chile, with a total production of 731 tons of honey and 157 tons of wax.¹ Dairy products are also a significant factor. In 1912 there were 195,167 milch cows in Chile, with a total production of 33,300,000 gallons of milk, 1,336 metric tons of butter, and 3,493 metric tons of cheese.

It is also in this central district that manufacturing has assumed considerable importance. In fact, almost

¹ See Wilson, *op. cit.*, p. 117.

every foreign visitor expresses surprise that the industries of the country have not been developed on a far larger scale. With ample water power, and no lack of coal, iron, and lumber, one would expect Chile to be the leading manufacturing country of South America. Although there has been considerable development of national industries the great obstacles have been the lack of capital and the absence of an adequate supply of skilled labor. With practically no immigration from Europe, little attempt has been made to develop the industrial capacity of the native laborer.

In spite of these difficulties the industrial development of the country has proceeded without interruption during the last twenty-five years. In 1912 the number of manufacturing establishments, together with capital and output, was as follows:¹

Industry	Number of Establishments	Capital	Value of Output
Flour mills	179	\$12,193,434	\$14,536,219
Breweries	63	5,334,031	3,249,423
Tanneries	129	5,116,415	4,936,200
Establishments for the elaboration of wood products other than sawmills..	134	4,827,576	5,044,088
Sawmills	296	2,931,287	1,701,626
Sugar refineries	8	4,327,917	4,933,736
Printing and binding establishments...	302	4,369,780	6,025,810
Shoe factories	45	3,498,020	4,394,493
Glass factories	3	583,176	457,995
Spaghetti factories	40	892,497	783,176
Cracker factories	12	379,145	645,057
Fruit and vegetable canneries.....	23	1,495,839	603,975
Meat and sea food packing establishments	6	158,000	175,090
Shipbuilding and repair.....	32	929,257	556,518
Hat factories	11	1,090,942	829,132
Corset factories	5	273,906	364,210
Cement factories	3	726,333	450,500
Textile factories	18	2,409,427	2,097,426
Agricultural and industrial machine shops	2	763,333	633,333
Bed and cot factories.....	4	192,652	607,574
Powder factories	9	191,072	138,447
Soap and candle factories.....	66	1,738,732	2,047,497
Total	1,390	\$54,422,771	\$55,211,525

¹ See *Sinopsis Estadística de la República de Chile*. Oficina Central de Estadística, 1914.

While some manufacturing is carried on in all parts of the country the great centers of industrial activity are the provinces of Santiago, Valparaiso, and Valdivia. The labor supply is almost exclusively native. The rate of wages is exceedingly low and the position of the labor classes has been unfavorably affected by the depreciating paper currency. For instance, in the textile industry the average wage of the 2,766 operatives is fifty-five cents per day.¹ The government has made every effort to encourage national industries, extending protective tariffs and, in some cases, offering further special financial inducements.

The central district, now under consideration, in addition to its agricultural and industrial position, also possesses important mineral deposits. One of the greatest copper mines of Chile is situated in the heart of this region.

C. THE SOUTHERN DISTRICT

With the exception of the agricultural and lumber interests on the Island of Chiloé and the great sheep ranges of the Magellan territory the resources of the far southern district may be said to be untouched. At present the population of the Island of Chiloé is 94,714 and of the entire Magellan territory 22,744. Although this district is acquiring increasing importance, it represents at the present time but a small part of the total production of the country. To develop its resources large investments of capital will be necessary.

¹ Wilson, *op. cit.*, p. 119. This was true in 1915. Since then the wages of industrial laborers have increased considerably.

CHAPTER II

THE INDUSTRIAL, COMMERCIAL, AND FINANCIAL SITUATION IMMEDIATELY PRECEDING THE WAR

ALTHOUGH Chile, like all the countries of South America, felt the effects of the industrial and financial depression which hung over Europe during the year 1913, they were less noticeable than in the Argentine and in Brazil. This was due, in large measure, to the fact that the spirit of speculation which led to inflated values in both of those countries during the period of 1910 to 1913 did not extend to Chile. There the leading influence during the period immediately preceding the war was the declining price of nitrate—at once the most important article of export (eighty per cent of the total exports) and the most important source of national revenue.¹

Although the production of nitrate had not been curtailed, profits were rapidly declining and plans were formulated to reorganize, under government auspices, the combination of nitrate producers which had been operated successfully for a number of years but which was finally dissolved because of lack of cooperation.

The condition of the nitrate industry reacted unfavorably on the general economic and financial condition of the country. The year 1913 was marked by a restriction of bank credits which accentuated the business depression. Between June 30, 1913, and June 30, 1914, bank loans declined from \$115,085,956 to \$111,967,636

¹ The nitrate export tax yields thirty-five per cent of total national revenues.

(American gold). During this same period bank deposits declined from \$91,240,000 to \$87,300,000.

In spite of these unfavorable conditions the country cannot be said to have been in a period of pronounced depression as was the case in Argentine and in Brazil in 1912 and 1913. It is true that but few new enterprises were being floated, banks were exercising greater care in extending credits, and merchants were showing greater caution and conservatism in their purchases. Everybody was awaiting an improvement in nitrate prices, which alone would have been sufficient to place the country on the high road to prosperity. Furthermore, there were indications of an improvement in the price of copper, the low price of which had been for a long time an unfavorable factor in the Chilean industrial situation.

At this moment of expectancy, the European War came as a crushing blow, bringing with it a series of consequences which seriously embarrassed the national treasury and threatened ruin and disaster to the industries of the country.

CHAPTER III

EFFECT OF THE WAR ON NATIONAL FINANCES

IN order to understand the unfortunate effects of the war on Chilean finances, it is important to bear in mind the extraordinary and exceptional fiscal system of the country. Prior to the war of 1879 with Peru and Bolivia, the Chilean fiscal system was similar in most respects to those of the other South American countries. In addition to the customs revenues, the main sources of income to the national treasury were a general property tax and certain internal revenue taxes. As a result of this war, Chile took from Bolivia the province of Antofagasta and from Peru the provinces of Atacama and Tarapaca, leaving pending for subsequent determination the status of Tacna-Arica.

The annexation of these great nitrate provinces completely changed the fiscal system of the country. Possessing a practical monopoly of the nitrate deposits of the world, the government was able to impose a high export tax without danger of hampering the development of the industry. This tax proved so productive that it was possible either to dispense with other forms of taxation or reduce the rates to so low a point as to relieve the property owners of the greater part of their burden. From a country with a normal fiscal system, Chile was soon transformed into a country occupying the exceptional position of granting to its inhabitants

practical immunity from general taxes on real and personal property.

While at first glance this may seem an advantage, it involved some serious dangers, the effects of which soon became apparent. The enormous and constantly increasing returns from the nitrate export tax and the consequent diminution of all direct taxes, relieved the government of that control by public opinion which is the immediate and direct result of the taxpayers' vigilance. The annual budget increased rapidly, due to a wide extension of government activities. The government embarked upon an elaborate system of state railroads, which, whatever their immediate strategic value or ultimate commercial importance, involved the necessity of meeting a large annual deficit.

This situation, while profoundly affecting the organization of the Chilean administrative system, did not involve any financial difficulties so long as the growing nitrate industry assured a constantly increasing national revenue. With no elastic internal revenue system to fall back upon, it was evident to the leading financiers of the country that any serious decline in the returns from the nitrate tax would mean disaster to the national treasury. The years 1911, 1912, and 1913 brought a foretaste of what was impending. The heavy drain on the financial resources of the country, due to the unusually large deficits in the state railway budget, resulted in deficits which in 1912 amounted to \$4,700,000 American gold and in 1913 to \$2,000,000. It was claimed, however, that this deficit was temporary; the state railway administration holding out the constant hope that the new lines soon would be put on a paying basis.

With the outbreak of the war the most important source of national revenue practically disappeared. The average monthly production from January 1 to August 1, 1914, was 5,404,729 quintals of 101.4 pounds. The

rapid decline in production is seen from the following table:¹

Month	Production (in quintals of 101.4 lbs.)
August, 1914	4,830,233
September, 1914	2,856,600
October, 1914	2,865,494
November, 1914	2,659,875
December, 1914	2,428,759
January, 1915	2,082,549

The price of nitrate dropped from eight shillings per quintal in July, 1914, to six shillings four pence in September, and soon thereafter to five shillings eight pence. Although these prices were quoted, there was practically no market. Contemporaneous with the rapid decline in price and adding still further to the difficulties of the situation came an extraordinary rise in freight rates which made exportation practically impossible. The sudden change that took place is made clear in the following table:

	Exportation Jan. to July, incl. Quintals (101.4 lbs.)	Exportation August to Dec., incl.
1913	30,481,463	29,047,647
1914	30,538,756	9,608,707

The decline in national revenues from this source alone has been as follows:

REVENUE FROM NITRATE EXPORT TAX	
Dollars American Gold	
1913	32,446,303
1914	23,369,471

Another element in the financial situation which served to place the public treasury in a difficult position was the rapid decline in customs revenues. With the outbreak of the European War the import trade of Chile came to a standstill. This was due in part to the temporary paralyzation of steamship communication, although the permanent underlying cause was the cutting off of European credits and the inability of local

¹ Commerce Reports, March 29, 1915.

merchants to meet the new trade conditions created by the war. The Chilean merchants were accustomed to a system of long term credits, and the sudden change to the requirements of cash transactions crippled the purchasing power of most of the commercial houses.

It is not surprising, therefore, to find that the customs receipts for 1914 were \$7,138,558 less than those of 1913, i.e., \$16,417,136 as compared with \$23,555,694. That this decline continued during the year 1915 is shown by the fact that whereas the customs receipts during the first three months of 1913 (January to March inclusive) were \$5,039,123 the receipts during the same period of 1915 were less than half this amount, \$2,353,658.

Confronted with the prospect of inability to meet the ordinary requirements of the public administration, the government was compelled to have recourse to a series of emergency measures of which the most important were as follows:¹

1. Law of March 1, 1915, reducing by from five to fifteen per cent salaries of officials of the national government as well as all pensions.

2. Law of March 1, 1915, imposing the following export tax on borax:

(a) During the first two years after enactment of the law \$2.50 American gold per metric ton.

(b) Thereafter \$3.65 per metric ton.

3. Law of February 5, 1915, establishing an inheritance tax:

(a) Of from one to four per cent on bequests to lineal heirs.

(b) Of five per cent on all collateral inheritances.

(c) Of ten per cent on bequests to persons bearing no blood relation to the testator.

All bequests to the Church are exempt from this tax.

¹ The further emergency measures intended to help the banking situation and to assist the nitrate industry will be discussed in a subsequent section.

4. Law of March 1, 1915, establishing a national general property tax of from two to four mills. Heretofore the general property tax has been exclusively municipal and the new national tax is based entirely on the municipal tax, being collected as a surtax on the assessments made for municipal taxation. The law provides that the national tax shall be two mills on real estate in Santiago, Valparaiso, Viña del Mar, and all other cities in which a special local paving and drainage tax exists, and four mills on real estate in all other sections of the Republic. The national rate on personal property is fixed at four mills in all parts of the country.

While these additional taxes will add considerably to the national revenues, it is not likely that they will be sufficient to balance the budget. Fortunately, the last few months¹ have witnessed a notable revival of the nitrate industry. The large demand of the powder manufacturers has advanced the price to a point higher than before the outbreak of the war. Exportation has again assumed normal proportions and there is every indication that it will soon exceed the normal. The result is that the revenue from the export tax will be considerably larger than was estimated in the budget. The indications are therefore that the deficit for the year 1915 which seemed inevitable at the opening of the year will either disappear or will be greatly reduced. It probably will be necessary to fund the standing deficits of the preceding years by means of a loan, although the government fully realizes that owing to the high prevailing rates of interest the conditions are unfavorable to any funding operations.

The national debt is classified into two distinct categories, the "external" and the "internal" debt. The "external" debt is as follows:

¹ This was written in 1915.

THE EARLY EFFECTS OF

Year	Rate of interest Per cent	Sinking fund Per cent	Name of loan	Original amount —Pounds—	Amount outstanding Sterling—	Issue price
1885	4½	½	Chilean Government 4½ per cent loans of 1885..	808,900	531,100	69
1886	4½	½	Chilean Government 4½ per cent loans of 1886..	6,010,000	4,306,700	98½
1887	4½	½	Chilean Government 4½ per cent loan of 1887..	1,160,900	817,500	97½
1889	4½	½	Chilean Government 4½ per cent gold loan of 1889	1,546,400	1,223,640	101¼
1892	5	½	Chilean Government 5 per cent loan of 1892..	1,800,000	1,447,300	95
1892	6	1	Chilean Government 6 per cent International loan of 1892.....	149,000	90,520	.....
1893	4½	½	Chilean Government 4½ per cent bonds of 1893..	630,000	495,700	.....
1895	4½	½	Chilean Government 4½ per cent loans of 1895..	2,000,000	1,661,300	93½
1896	5	½	Chilean Government 4½ per cent loans of 1896..	4,000,000	3,436,700	95½
1896	5½	2	Penuelas loan	200,000	74,400	.....
1900	4½	½	Chilean Government 4½ per cent Coquimbo Railway bonds	265,000	222,160	.....
1905	5	1	Chilean Government 5 per cent loan of 1905..	1,350,000	1,256,700	95½
1906	4½	2	Chilean Government 4½ per cent gold loan of 1906	3,700,000	2,981,220	94½
1909	5	½	Chilean Government 5 per cent loan of 1909..	3,000,000	2,934,700	96½
1910	5	1	Chilean Government 5 per cent loan of 1910..	2,600,000	2,517,040	99
1911	5	1	Chilean Government 5 per cent loan of 1911, first series	4,905,000	4,802,180	98½
1911	5	1	Chilean Government 5 per cent loan of 1911, second series	5,000,000	4,948,200	98½
1911	4½	1½	Chilean Government 4½ per cent bonds (Coplazo Railway bonds)	275,000	265,280	.....
Total external debt of Chilean Government ...				39,399,500	33,912,340	

To the above there should be added 2,000,000 pounds sterling of treasury notes floated in London. In addition, the government has guaranteed the following:

- (a) A loan of the Iron Smelting Co. of Corral, for 525,000 pounds sterling.
- (b) The bonds issued by the Transandine Railway Co. amounting to 1,450,000 pounds sterling.

(c) The bonds issued by the Longitudinal Railway Contracting Co. amounting to about 7,000,000 pounds sterling.

The so-called "internal" debt is made up as follows:

	Gold Pesos of 18d.
1. Obligations incurred in Treaty of Peace with Bolivia	5,822,535.00
	Paper Pesos
2. Municipal indebtedness assumed by the national government ¹	9,232.28
3. Censos Redimidos	30,450,431.46
4. Internal loan of 1837 (3%)	1,594,772.06
5. Paper money (against which a conversion fund is deposited in Europe)	150,000,000.00
6. Early issues of paper money	863,803.00

¹ The total "external" indebtedness of Chilean municipalities amounts to £800,000.

CHAPTER IV

EFFECT OF THE WAR ON CURRENCY AND BANKING

THIS subject is so closely related to the question of government finances that the discussion of the one necessarily involves the other. The Chilean currency system is based on the gold peso, whose nominal value is 18 pence or 36.5 cents American gold. Until 1898 the convertibility of the peso was maintained; but since that time a system of inconvertible paper money with a fluctuating value has prevailed. The extent of these fluctuations has been as follows:

VALUE OF CHILEAN GOLD PESO IN ENGLISH PENCE (Nominal Value 18d.)

Average value in English Pence	Average value in English Pence
1899..... 14 $\frac{1}{2}$	1906..... 14 $\frac{3}{8}$
1900..... 16 $\frac{1}{4}$	1907..... 12 $\frac{3}{4}$
1901..... 15 $\frac{7}{8}$	1908..... 9 $\frac{9}{16}$
1902..... 15 $\frac{3}{16}$	1909..... 10 $\frac{25}{32}$
1903..... 16 $\frac{5}{8}$	1910..... 10 $\frac{25}{32}$
1904..... 16 $\frac{3}{8}$	1911..... 10 $\frac{9}{8}$
1905..... 15 $\frac{5}{8}$	1912..... 10 $\frac{1}{8}$

During the last two years the fluctuations have been as follows:

VALUE OF CHILEAN PAPER PESO IN ENGLISH PENCE

	1913 d.	1914 d.
January.....	10 $\frac{7}{32}$	8 $\frac{31}{32}$
February.....	10 $\frac{1}{16}$	9 $\frac{15}{32}$
March.....	10 $\frac{5}{32}$	9 $\frac{5}{8}$
April.....	10 $\frac{1}{32}$	9 $\frac{23}{32}$
May.....	9 $\frac{31}{32}$	9 $\frac{7}{16}$
June.....	9 $\frac{25}{32}$	9 $\frac{11}{16}$
July.....	9 $\frac{9}{16}$	9 $\frac{1}{2}$
August.....	9 $\frac{11}{16}$	9 $\frac{1}{16}$
September.....	9 $\frac{9}{16}$	8 $\frac{21}{32}$
October.....	9 $\frac{13}{32}$	7 $\frac{13}{16}$
November.....	9 $\frac{9}{32}$	7 $\frac{9}{16}$
December.....	9 $\frac{13}{32}$	7 $\frac{9}{16}$
Average for year.....	9 $\frac{3}{4}$	8 $\frac{31}{32}$

This constantly fluctuating currency has been a serious obstacle to the development of Chilean commerce as well as a constant discouragement to the investment of foreign capital. The uncertainties of the situation, the constant danger of finding profits swept away by reason of falling exchange have not only been a handicap to commercial transactions but have introduced an element of speculation into international trade which has been harmful to the country. Commission houses in Chile in order to protect themselves against losses due to fluctuations in exchange are compelled to go into the market and purchase Chilean exchange to the amount of their sales for delivery ninety days from date, i.e. when payment for the goods they have sold becomes due.

During the last fifteen years the leading problem confronting the Chilean government has been the reestablishment of the convertibility of the paper peso. A "conversion fund," which today amounts to \$38,495,390 in American gold, has been maintained in Europe. Innumerable projects have received the consideration of the government, but there has always been an influential element—the large landowners—who while publicly favoring a conversion plan are in reality in favor of maintaining the present system, which permits them, for all exported products, to receive payment in gold, while they are paying their laborers in a depreciated paper currency. During the last ten years, however, the laboring classes have been acquiring some little influence in public affairs. They have seen with increasing clearness that they are the main sufferers by reason of a depreciating currency—their money wages remaining practically the same, while the purchasing power is constantly declining.

After a long series of discouraging postponements, a plan was finally evolved by which the convertibility of the paper peso was to be reestablished in 1915. This plan provided for the establishment of an institution to be known as the "Caja de Conversión" to be managed

by a board of six directors to be appointed by the President of the Republic, two to be approved by the Senate and two by the Chamber of Deputies. Under the plan as approved by the Senate, the conversion was to be made on the basis of twelve pence gold to the peso and a fixed rate of exchange to be maintained at that point thereafter. In the Chamber of Deputies this rate was reduced to ten pence.

In spite of this deadlock, the conditions seemed favorable to the carrying out of some definite plan in 1915. The financial crisis precipitated by the European War put an immediate end to all thought of an early solution of the problem. Congress immediately postponed until 1917 the date at which the convertibility of paper money should be established. Unless financial conditions both in Chile and in the world at large improve considerably during the coming year it is likely that Chile will be compelled to postpone for a further period the reform for which her merchants have been waiting so long—the establishment of a stable currency system.

In spite of the fact that the "Conversion Fund" amounts to more than twelve pence per peso in circulation, the effect of the war was to cause a rapid decline of exchange to less than eight pence. Although it has recovered somewhat, the prevailing rate during the first six months of 1915 was less than nine pence. This has been due in part to the unfavorable trade balance and in part to the speculative manipulation of exchange. The amount of paper currency in circulation at the end of 1913 was 150,863,803.50 pesos.

In Chile, as in all the other countries of South America, the outbreak of the war led to a financial panic which caused heavy withdrawals of bank deposits. In order to avert disaster the first step taken by the banks was to avail themselves of the provisions of the law of May 11, 1912, which created a "*Central Office of Issue*" and authorized the banks to receive paper money in exchange

for gold deposited at the rate of one peso paper for every twelve pence. The extent to which use was made of this emergency circulation is evidenced by the fact that on August 3, 1914, at the height of the financial stress, 33,000,000 pesos were issued to three local banks in Santiago. Of the total emission of 55,481,590 pesos issued under this law a considerable portion had been retired, so that on July 31, 1915, but 25,320,000 pesos remained in circulation.

As a further measure to relieve the strain caused by the European War on the country's banking system, the Congress passed a law (August 3, 1914) providing for the issuance of treasury notes by the government. The legislation relating to this subject was intended not only to relieve the banking situation, but also to assist the nitrate producers, the hope of the government being that by coming to their aid, it would be possible to induce them to continue operations and thus prevent the complete paralyzation of the industry and the widespread misery which would be entailed in throwing out of employment sixty or seventy thousand men.

The emergency laws relating to this subject were passed on August 3 and August 12, 1914, and are known as laws Nos. 2912 and 2918. The first relates to treasury notes issued to the banks and authorizes the President of the Republic to issue for a period of one year treasury notes of denominations of five thousand, one thousand, and five hundred pesos Chilean currency. These notes are not to bear interest but are legal tender for all obligations payable in paper currency. Under the provisions of the law banks may secure these treasury notes under the following conditions:

First. Banks desiring these notes may secure them by depositing with the government mortgage "cédulas," a form of bond issued by the agricultural credit institutions.

Notes to the extent of ninety per cent of the market value of such "cédulas" will be issued.

Second. For the use of these notes the banks are required to pay to the government a rate of interest three per cent less than the interest charged by such banks to their debtors.

The possibility of increasing their reserves through these treasury notes contributed materially toward enabling the banks to tide over the crisis caused by the withdrawal of funds by depositors. From August 12, 1914, to July 31, 1915, the government issued to the banks treasury notes to the amount of 38,554,500 pesos. Of this total the banks have returned for cancellation 33,100,000 pesos, leaving a balance of 5,454,500 pesos outstanding.

Notes of a similar character were issued to producers of nitrate. The conditions of this issue will be described in considering the effect of the European War on commerce and industry in Chile. Suffice it to say in this connection that under authority conferred by the law of August 12, 1914, the government has issued to producers of nitrate treasury notes amounting to 39,300,500 pesos. Of this total 32,085,000 pesos have been returned for cancellation, leaving a balance of 7,215,500 pesos. Thus the total of treasury notes still in circulation on July 31, 1915, amounted to 12,670,000 pesos.

The effect of the European War on the banking situation in Chile as compared with that produced in the other countries of South America leads one to the conclusion that, relatively speaking, the Chilean banks suffered but little. The fact that the country's currency is on a paper basis served to lessen the shock. Withdrawals of gold by foreign banks were met by the emergency issues described above. The paper currency enabled the banks to meet the threatened contraction with comparative ease. But one institution, the Banco

Italiano, was compelled to close its doors and the general opinion prevailing in financial circles is that the failure was not due primarily to the war.

The most serious aspect of the banking situation was the effect on the relations existing between the banks and the general public. Commerce and industry suffered severely from the sudden restriction of credits. While the banks took this step as a measure of self-protection, the immediate effect was to bring about the paralyzation of trade. Since the beginning of 1915 there has been a marked tendency toward a more liberal policy in the extension of bank credits. The improvement of the nitrate situation has had a buoyant effect on the banks and has led them to grant facilities which they consistently refused during the latter half of 1914. The extent to which credit restriction was carried can be seen from a comparison of the bank statements for 1913 and 1914 respectively:

CHILEAN BANKS

	1913		1914	
	Paper Pesos	Gold Pesos 18d.	Paper Pesos	Gold Pesos 18d.
Deposits	316,055,823.55	33,041,352.93	313,138,171.18	40,341,725
Capital	142,271,047.00	502,000.00	188,477,340.00	2,121,035
Cash	51,595,617.35	589.00	76,831,730.00	5,997,985
Discounts, loans and advances	453,318,217.00	3.00	418,613,893.00	16,715,293

FOREIGN BANKS

	1913		1914	
	Paper Pesos	Gold Pesos 18d.	Paper Pesos	Gold Pesos 18d.
Deposits	94,604,919	28,060,408	78,415,724	28,327,621
Capital	16,639,207	8,267,973	27,632,312	3,267,973
Cash	14,853,229	2,004,020	30,011,968	2,222,068
Discounts, loans and advances	137,797,622	31,220,208	93,898,825	32,519,997

From the foregoing table it will be seen that the foreign banks restricted their credits to a far greater extent than the Chilean banks. This was a source of widespread complaint and led to a marked feeling of opposition toward the foreign institutions. In fact, one

of the immediate results has been to give renewed force to the agitation for legislation requiring banks to invest or maintain in the country the capital they declare for use in Chile and also limiting their deposits in proportion to their declared local capital.

Although it cannot be said that the banking situation has again reached normal conditions, the danger point has been passed and with each month the leading banks are strengthening their position through increasing gold reserves and at the same time extending their usefulness to the community through a more liberal credit policy. As regards the currency situation, there is noticeable a slight tendency toward the improvement of exchange.

CHAPTER V

EFFECT OF THE WAR ON COMMERCE AND INDUSTRY

ALTHOUGH the effects of the general world-wide depression were felt in Chile throughout the year 1913 and during the six months of 1914 immediately preceding the outbreak of the European War, the acuteness of the depression was not so marked as in the other leading countries of South America, notably the Argentine, Brazil, and Peru. The main reason for the more favorable situation of Chile has been referred to in a preceding section, viz.: the local situation was not aggravated by a reaction against a long period of speculative inflation, such as characterized Argentine and Brazilian commercial conditions during the years 1910 to 1913, inclusive. While it is true that world conditions were not favorable either to the nitrate or to the copper market—the two great products of Chile—the depression was not sufficient to lead to any serious curtailment of production. In fact, during the months of May, June, and July, 1914, there were marked indications of a healthy renewal of business. It was generally expected that the year would end with a record of real improvement over 1913.

The war came as a blight to all these prospects. The fact that Chile is essentially a "one-product country" and that not only the general prosperity of the country but also the stability of government finances are dependent on the conditions of the nitrate market, means that any influence that seriously affects the demand for nitrate immediately reacts throughout the entire country. The European War, at one blow, practically destroyed

the nitrate market, for the time being. Up to the outbreak of the war Europe was the great market for this product, as will be seen by examining the export figures for 1913 and 1914.

EXPORT OF NITRATE
(Metric Tons)

	1913	1914
Great Britain	1,004,979	607,022
Germany	629,298	303,334
France	121,472	67,128
Belgium	118,690	74,082
Netherlands	100,379	77,314
Italy	10,684	18,231
United States	630,790	536,799
Other Countries	122,731	162,873
Total	2,739,023	1,846,783

The uncertainties of transportation due to the presence of belligerent fleets in the Pacific completely paralyzed shipping and thus made it impossible to meet even the reduced demands of Europe. The importance of nitrate as a factor in the international trade of Chile is seen from the fact that in 1913 it represented \$111,454,397 out of a total export of \$142,801,576.

The misery entailed on the laboring classes will be discussed in a subsequent section. As regards the nitrate producers they found themselves facing a situation which threatened ruin. During the first six months of 1914 the production of nitrate was 32,148,999 quintals of 101.4 pounds as compared with 30,092,777 quintals during the first six months of 1913. Exportation during the first six months of 1914 was 24,144,211 quintals as compared with 26,922,030 for the same period of 1913. The following comparison of production and exportation illustrates the situation immediately preceding and immediately following the outbreak of the European War.

	Jan.-July (inclusive) Quintals	Aug.-Dec. (inclusive) Quintals
Production of nitrate (1913).....	35,388,811	37,862,106
Production of nitrate (1914).....	39,963,956	15,689,115
Exportation of nitrate (1913).....	30,481,463	29,047,647
Exportation of nitrate (1914).....	30,538,756	9,608,707

Not only did prices drop violently but for a time there was practically no market at any price. By February, 1915, the price had declined to five shillings eight pence per quintal and the number of plants in operation was reduced from 134 to 43. The general closing down of the nitrate plants threatened to create a critical labor situation. In normal times about 53,000 laborers are employed in this industry, earning on an average 6.48 Chilean paper pesos per day, which at the then rate of exchange is equivalent to \$1.02 American gold. The arid character of the nitrate district makes it impossible to transfer this labor to other employment in the same region during periods of depression. Furthermore, the laborer in the nitrate fields is accustomed to a higher standard of life than the agricultural laborers of the South.

As soon as the nitrate plants began to close down the government addressed itself to the problem of transporting the laborers to the agricultural provinces. Thirty thousand were thus transferred. We shall have occasion to refer to the results of this transfer in considering the labor situation created by the European War. Reference is made to the matter in this connection in order to explain the motives that led the government to come to the rescue of the nitrate industry through special legislation intended to encourage the continued operation of the plants.

On August 2, 1914, the Congress passed a law authorizing the President of the Republic to advance to such nitrate producers as agreed to continue the operation of their plants the sum of three Chilean pesos (at the then rate of exchange 49 cents) per Spanish quintal of nitrate in stock at the plant or four pesos for each quintal deposited at any of the ports of the Republic. The original act provided that no such advances were to be made after December 31, 1914, but a subsequent law

(that of January 4, 1915) extended the period for a further six months.

Up to January 31, 1915, sixty-seven nitrate producers had availed themselves of the privilege accorded by the law, receiving advances amounting to 37,713,455.00 paper pesos. Of this total 9,813,544.77 have been repaid to the government, leaving a balance of 27,899,910.23 pesos outstanding.

Since the first of February, 1915, the nitrate situation has been gradually improving. During the months of May, June, and July, 1915, the improvement has been so rapid that at the present moment (September, 1915) the industry has almost reached a normal level. In fact, the only obstacle to complete restoration has been the absence of an adequate labor supply. With the return of the laboring population that was transported to the southern provinces at the outbreak of the war, all the plants will be placed in full operation. The main reason for this rapid improvement has been the advancing demand for nitrate by the powder factories of the United States. With this increasing demand prices have advanced steadily. Instead of being unsalable at five shillings eight pence per quintal, as was the case soon after the outbreak of the war, the quotations in September reached and passed the eight shilling mark. The price range during the last two years has been as follows:

RANGE OF PRICE PER QUINTAL

August, 1913	7s. 9½d. to 8s.	(\$1.99 to \$1.94)
September, 1913	8s. " 7s. 11d.	(1.94 " 1.92)
August, 1914	7s. ½d. " 6s. 10d.	(1.71 " 1.66)
September, 1914	6s.	(1.46)
October, 1914	6s.	(1.46)
July, 1915	7s. 7d.	(1.84)
August, 1915	8s.	(1.94)

THE COPPER INDUSTRY

The effect of the European War on the copper industry in Chile has been practically the same as in

Peru. Unsatisfactory conditions prevailed in the copper market since 1910. Prices steadily declined from eleven cents in 1910 to ten cents in 1914. With the outbreak of the war the industry suffered temporarily because of a lack of shipping facilities, but the increasing demand for copper for the manufacture of war materials led to a steady advance in price. Although freight rates have risen, the increase has not been sufficient to discourage the development of the industry. The two great plants, "El Teniente" and "El Chiqucamata," are now working to their full present capacity and this is also true of the smaller enterprises. The value of the exports of copper in 1914 as compared with 1913 is as follows:

	1913	1914
Copper bars	\$5,593,540	\$7,135,015
Copper concentrates	2,432,942	1,867,214
Copper ore	2,310,869	1,912,313

These figures give but an inadequate idea of the extent of the revival of the copper industry, as the effect of the increasing world demand for copper did not make itself felt until well toward the end of 1914.

AGRICULTURE

Inasmuch as Chile is not an exporter of agricultural products to any considerable extent, the European War cannot be said to have had a marked effect on the agricultural situation. The temporary closing of the nitrate fields during the latter half of 1914 deprived the farmers of the South of an important market for their products, but this was merely a temporary setback from which full recovery has been effected.

DOMESTIC AND INTERNATIONAL TRADE

With the exception of the laborers in the nitrate fields, no class of Chilean society has suffered so severely from the effects of the war as the wholesale and retail

merchants. From whatever point of view we approach the situation, it is evident that all the influences set in operation by the European War tended to make their position increasingly difficult. The restriction of credits by the banks made it impossible to secure the customary accommodations, falling exchange served further to reduce the little credit that remained in the foreign market, and the widespread unemployment amongst the laboring classes led to a serious decline in the amount of business transacted.

The restriction of European sources of supply for manufactured goods led the merchants of the country to look to the United States as a possible source of supply, but here they were confronted by the refusal of American manufacturers to grant the long term credits to which the Chilean merchants had been accustomed and without which they were unable to make any large purchases.

In the discussion of the effects of the European War on the nitrate industry we have incidentally referred to the temporary paralyzation of the export trade in this, the most important of Chilean products. Although nitrate suffered more severely than other articles of export a comparison between the figures of 1913 and 1914 indicates a general falling off, with the exception of copper bars and barley.

VALUE OF EXPORTS OF CHILEAN PRODUCTS, 1913-1914

	1913	1914
Nitrate	\$111,454,397	\$77,117,063
Copper bars	5,593,540	7,135,015
Copper ore	2,310,869	1,912,313
Copper concentrates	2,432,942	1,867,214
Wheat	2,390,727	199,775
Hides	1,537,850	918,260
Barley	303,361	1,677,078
Quillay bark	90,639	132,857

The total value of exports sent to the various countries during the years 1913 and 1914 was as follows:

THE EUROPEAN WAR UPON CHILE

31

DISTRIBUTION OF EXPORTS, 1913-1914

	1913	1914
Great Britain	\$33,348,341	\$40,041,306
United States	30,413,385	31,437,890
Germany	30,772,742	18,078,985
France	8,847,885	4,245,128
Belgium	5,673,769	3,444,558
Holland	4,470,103	3,290,995
Argentina	1,034,880	1,511,508

These figures indicate a marked falling off in the exports to all countries with the exception of the United States and the Argentine. As regards the former, it is explained by the recovery of the copper and nitrate shipments toward the end of 1914. In the case of the Argentine the increase is due to the demand for dried fruits and vegetables.

The European War has had a disastrous effect on the import trade, due, in part, to the crippling of shipping facilities from Europe, but mainly to the shutting off of European credits and the inability of the Chilean merchants to establish such credits in the United States.

In 1913 the total imports were \$120,254,731. They declined to \$108,461,095 in 1914. Imports from the United States held their own, whereas those from Europe suffered a severe decline. The increase of imports from Australia and Peru were due to heavy shipments of coal and sugar respectively.

CHILEAN IMPORTS, 1913-1914

	1913	1914
Germany	\$29,598,138	\$25,889,770
Great Britain	35,928,943	22,309,086
United States	20,089,158	20,148,575
France	6,623,260	4,106,107
Belgium	5,673,426	4,151,372
Argentina	3,262,653	2,164,935
India	3,187,043	1,979,472
Italy	3,176,284	1,976,512
Peru	4,610,475	5,380,220
Australia	3,343,831	6,270,379 ¹

¹ For many of the figures relating to exports and imports the writer desires to acknowledge his indebtedness to the Hon. L. J. Keena, American Consul General at Valparaiso.

The violent fluctuations of Chilean currency since the outbreak of the war have been another factor that has entered to discourage increasing importations. Inasmuch as such imports must be paid in gold and are sold for paper currency, there necessarily exists considerable uncertainty with reference to profits. A sudden fall in exchange may wipe out all prospective profits. There exists, therefore, on the part of all merchants who do not wish to incur speculative risks a tendency to await a period of more stable exchange before undertaking large purchases.

EMERGENCY MEASURES ADOPTED TO ENABLE MERCHANTS TO MEET CONDITIONS CREATED BY THE WAR

a. *Moratoria*

One of the first measures adopted was the Act of August 7, 1914, declaring a moratorium of thirty days for all bills of exchange, notes, and drafts payable during the month of August. This law also gave authority to the President to extend the moratorium for a further period of thirty days. A little later, September 7, 1914, an act was passed establishing a moratorium of sixty days for all obligations payable in gold entered into prior to August 1, 1914, and which fell due between that date and November 1. During this period, however, the debtor was required to pay interest at the stipulated rate or, if no such rate had been agreed upon, at the current rate of interest. Creditors could, however, demand the payment of the amount due at the time when due, if they were willing to accept in payment Chilean paper money at the rate for ninety-day drafts on London or at the rate fixed by the government for the payment of customs dues. The President of the Republic was authorized by this law to extend this moratorium for a period of thirty days. By decree of October 29, 1914, he made use of this power.

The Act of February 5, 1915 (Law No. 2980), provided for an additional extension of ninety days of the moratorium for obligations due in gold and authorized the President to make further extensions for periods of sixty days until September 1, 1915. By a series of decrees, the last of which was issued August 9, 1915, the moratorium for such obligations was extended until September 1, 1915. The Act of February 5, 1915, also provided for a period of four months' grace, without right of protest, on all international commercial obligations contracted by merchants in Chile with firms resident in belligerent countries or in countries under moratorium. The four months' period ran from the date on which the obligation fell due and was only applicable to obligations contracted prior to August 1, 1914. The President was given power to extend this moratorium for periods of thirty days until September 1, 1915. Availing himself of this power, he published a series of decrees, the latest being dated August 9, extending the period of grace to September 1, 1915.

b. Exportation of Cattle and Food Products

By Act of August 3, 1914, the President was authorized to prohibit the exportation of cattle, food products, and coal for such period as he might deem advisable. The same act gives to the President the power to suspend customs dues on food products in all cases in which the wholesale price of such products exceeds the price quoted during the first two weeks of July, 1914.

On August 4, 1914, the President, availing himself of the power thus conferred upon him, issued a decree prohibiting the exportation of cattle and coal, and of a long list of food products. By a later decree, that of March 4, 1915, the import duty of thirty-six cents per hundred pounds on wheat flour was suspended until June 30, 1915.

TRANSPORTATION FACILITIES AS AFFECTED BY
THE WAR

One of the most serious consequences of the European War has been the crippling of transportation facilities between Chile and the European countries from which the supplies of manufactured products were obtained. It is true that the paralyzation was temporary, but even after the battle of the Falkland Islands, when the last of the German cruisers were driven from American waters, the scarcity of bottoms was such that Chilean products were compelled to wait at the docks for months for available cargo space. When shipping facilities could be secured, it was found in many instances that freight rates had advanced to such an extent that either shipment was impossible or the possible profits of the transaction were considerably reduced by reason of the inordinately high transportation charges.

Prior to the outbreak of the European War the steamship lines serving the West Coast of South America had reached an agreement with reference to rates from Valparaiso to New York and Liverpool via Panama or Magellan. With the outbreak of the conflict these schedules were thrown to the wind and a system of charging "what the traffic would bear" was inaugurated. Since August, 1914, freight rates have been subject to the most violent fluctuations, depending entirely on the relation of the cargo offered to the available space. Published rates can no longer be depended upon as the actual rates charged. To quote but one instance: prior to the outbreak of the war the rate on nitrate to Liverpool varied from sixteen to twenty shillings per ton. As late as July, 1914, shipments to England were made at the former rate. The rate to New York was practically the same. Soon after the outbreak of the war rates advanced violently and in at least one instance one

hundred shillings per ton were paid for transportation of nitrate from Antofagasta to Liverpool. Some idea of the advance in freights can be obtained through a comparison of the published rates, although it is important again to emphasize the fact that to secure space the shipper must often pay a rate considerably in excess of the published rate.

FREIGHT RATES PER TON WEIGHT

VALPARAISO TO NEW YORK VIA THE PANAMA CANAL

	July 1914	December 1914	July 1915	August 1915
Copper bars	£2	£2.10.0	\$11.25	\$11.25
Copper ores	1. 2.6	1.17.6	12.00	12.00
Hides	2.10.0	5. 0.0	25.00	25.00
Nitrate (fluctuating to such an extent that quotations are impossible)				

VALPARAISO TO LIVERPOOL VIA MAGELLAN

	July 1914	December 1914	July 1915	August 1915
Copper bars	£2	£2.10.0	£2. 0.0	£2.10.0
Copper ores	1. 6.0	1.15.0	2.10.0	2.10.0
Hides	2.10.0	4.10.0	4.10.0	4.10.0
Borate	1.10.0	1.17.6	2. 0.0	2. 0.0
Nitrate (constantly fluctuating)				

The falling off in tonnage loaded and discharged in Chilean ports has been as follows:¹

MERCHANDISE LOADED AT PORT OF VALPARAISO

1913	466,817 tons
1914	413,172 "
January-June, 1914	242,476 "
" " 1915	216,697 "

MERCHANDISE DISCHARGED AT VALPARAISO

1913	1,183,998 tons
1914	868,467 "
January-June, 1914	489,983 "
" " 1915	326,550 "

MERCHANDISE LOADED AT ALL CHILEAN PORTS

1913	4,735,848 tons
1914	3,711,146 "
January-June, 1914	2,243,406 "
" " 1915	1,714,845 "

¹ I am indebted for these figures to the Hon. L. J. Keena, American Consul General at Valparaiso.

MERCHANDISE DISCHARGED AT ALL CHILEAN PORTS

1913	3,870,072 tons
1914	3,226,687 "
January-June, 1914	1,855,489 "
" " 1915	946,602 "

The problem of improving transportation facilities between Chile and the United States is one that is now receiving the serious consideration of the Chilean government. There exists a widespread desire not only to add to the available bottoms, thus reducing the heavy burden which existing freights have placed on Chilean industries, but also to improve the passenger facilities by means of a direct line, without trans-shipment, from Valparaiso to New York, making the trip in fifteen days instead of the present unsatisfactory schedule, which means from twenty-three to twenty-seven days, with the additional discomfort of trans-shipment at Colon.¹

In normal periods, such as 1913, the tonnage movement northward from Chile to the United States is approximately 600,000 tons; the movement southward is about 532,000 tons. This tonnage is divided as follows:

CHILE TO UNITED STATES		UNITED STATES TO CHILE	
Nitrates	573,773 tons	Oils	350,000 tons
Copper and Regulus.....	20,270 "	Coal	112,500 "
Lead	2,112 "	Cloth	5,500 "
Iodine	175 "	Fish	1,200 "
Antimony	170 "	General merchandise	63,300 "
Wool	25 "		
Miscellaneous	3,475 "		
	600,000 "		532,500 "

The problem to which the Chilean government has addressed itself is to formulate a policy which will enable the Chilean merchants to enjoy regular and rapid communication with the United States either through a system of direct subsidies or through liberal payments for the transportation of mails. This desire and deter-

¹ November, 1917. The establishment of a direct line from New York to Valparaiso within recent months will go far towards solving the immediate problem.

mination have been the direct outcome of the situation created by the European War. The powder mills of the United States have become great consumers of Chilean nitrate and it is the hope of the government that with improved means of communication other Chilean products, notably the fruits of the country, will find a market in the United States.

While there exist wide differences of opinion as to whether such a steamship line can be made to pay, the Chilean government is prepared to make sacrifices in order to bring about closer relations with the United States. It is the hope of both officials and merchants that such a demonstration of national goodwill will have some influence on American manufacturers in inducing them to adapt their business methods more closely to the credit system which has prevailed in Chile from the earliest period of her commercial development.

LABOR CONDITIONS AS AFFECTED BY THE WAR

The difficulties and hardships encountered by Chilean merchants and manufacturers as a result of the European War sink into insignificance when compared with the widespread suffering and misery which the paralyzation of commerce and industry entailed upon the working classes.

Broadly speaking, the laboring population of Chile may be divided into four categories, each living under totally different conditions, both of physical environment and general conditions of employment.

First—The nitrate laborers of the northern provinces.

Second—The mining laborers of the northern and central provinces.

Third—The industrial laborers of the central provinces.

Fourth—The agricultural laborers of the central and southern provinces.

The Nitrate Laborers of the Northern Provinces

The laborers in the nitrate fields of the provinces of Tarapaca, Atacama, and Antofagasta live under conditions totally different from those of the remainder of the laboring population of Chile. Labor in the arid nitrate fields requires great strength and endurance under the most trying of living conditions. The nitrate regions produce no food products and the price of fresh vegetables is so high that the nitrate laborer is compelled to live on canned goods. It is true that he receives a wage far higher than any other class of Chilean labor, but it also must be remembered that the cost of all the necessaries of life in the nitrate district is exceedingly high. The daily wage of the ordinary laborer ranges from five pesos, ninety centavos, to seven pesos, three centavos per day, which at the rate of exchange of August, 1915, is the equivalent of ninety-five cents to \$1.14 American gold.

At the outbreak of the European War 53,161 laborers were employed in the nitrate fields. We have had occasion to describe the acute crisis through which this industry passed as a result of the sudden closing of the European market and the complete paralyzation of transportation facilities. In August, 1914, the nitrate works began to shut down and the government found itself confronted with the serious problem of taking care of a great army of unemployed. Inasmuch as in this entire district nitrate production is the only possible industry there was no possibility of transferring these people to other occupations in the same district. As we have seen, the government endeavored to induce the nitrate producers to keep their plants running by advancing funds to those who would agree not to shut down. In this effort they were but partially successful, and it was soon found necessary, in order to prevent actual starvation, to transfer at government expense

more than thirty thousand laborers with their families. The Chilean laborers were taken to the central provinces, the Bolivians and Peruvians returned to their respective countries. Some idea of the extent of unemployment in this district can be secured from an examination of the statistics of labor employed in one of the nitrate provinces—that of Tarapaca—during the year 1914.

PROVINCE OF TARAPACA

LABORERS EMPLOYED DURING EACH MONTH OF 1914

January	22,598	July	23,157
February	22,618	August	17,581
March	22,777	September	8,347
April	23,168	October	7,956
May	23,170	November	7,763
June	23,509	December	7,506

This transfer to the South did not serve to relieve the suffering of this large laboring population. While agricultural employment could have been found for a large number, the daily wage of the farm laborer in Chile is so low that these nitrate laborers refused to accept employment on such terms.¹

The result was that the government was compelled to maintain at public expense a large army of workers and their families. Furthermore, the willingness of a certain number of the nitrate laborers to accept employment on the farms served still further to depress the wage scale of the agricultural laborer.

Fortunately, early in 1915, the demand for nitrate received a strong stimulus by reason of the needs of the powder factories in Europe and the United States. By that time, shipping facilities had also improved. As a result of these influences the nitrate plants that had been shut down began to resume operations and the laboring

¹ The agricultural laborer receives from 1 peso to 1 peso 75 centavos per day, together with free lodging and a pound of beans per day. At the present rate of exchange the peso is worth 16½ cents, American gold.

population was not slow to return to this district of relatively high wages. The nitrate producers are now making every effort to secure the immediate return of their laborers and every plant will soon be working at full capacity. Every steamer from the South is bringing hundreds of workers and at the present writing (September, 1915) the production of nitrate has reached about ninety per cent of normal.

While, therefore, the war precipitated a period of great suffering for the nitrate laborers, this period has now passed.

The Mining Laborers of the Northern and Central Provinces

The most recent official reports place the total number of laborers engaged in the mining industries in normal times at 84,619. Deducting, therefrom, the 53,161 engaged in the nitrate fields, there remains a balance of 31,458 engaged in the other mineral industries. Of this total 18,471 are employed in the copper mines and smelters and 8,414 in the coal mines. The remaining 4,573 are employed in the iron, borax, sulphur, gold, and silver mines. Wages in the mining industries are relatively high, the average ranging from eighty cents (American gold) per day in the iron mines to \$1.00 in the copper mines. This leaves out of account the nitrate mines, with which we have dealt separately and in which, as we have seen, the wage scale is higher than in any other of the mining industries.

While the European War brought about a temporary paralyzation of the nitrate industry, the other mineral industries were less affected. The main difficulties experienced by the copper producers were, first, a lack of shipping facilities, and second, a scarcity of subsidiary currency with which to pay their laborers. The withdrawal of funds from banks by depositors created a

scarcity of circulating medium, which was keenly felt by the mining companies during the month of August, 1914. This situation was soon remedied through the facilities afforded by the "Caja de Emisión." On the other hand, the transportation problem was not so easily solved and for a time proved a menace to the mining industry.

In spite of the unfavorable conditions that prevailed immediately after the outbreak of the war, the mining companies made a determined effort to keep their plants in full operation and in this effort were entirely successful. There was practically no shutting down and as early as August 11, 1914, the manager of one of the largest copper mines informed the government that if he could secure adequate currency for the payment of his men, he would be willing to add to his labor force.

The Industrial Laborers of the Central Provinces

Although the effect of the European War was most keenly felt by the nitrate laborers of the northern provinces, the employees of the manufacturing establishments of the central provinces also suffered severely. The total number of factory employees at the outbreak of the war was 80,697, distributed as follows:

Industry	Employees
Breweries and distilleries.....	4,225
Glass and pottery.....	1,053
Food products	12,068
Gas and electricity.....	1,218
Shipyards	1,034
Clothing	14,016
Furniture and all other wood products.....	12,393
Building supplies	1,365
Textiles	2,568
Metal products	6,880
Paper and printing.....	4,731
Leather and fur products.....	12,279
Drugs and chemical products	2,871
Tobacco products	1,735
Carriages and other vehicles.....	1,530
Miscellaneous	731
Total	80,697

This total is made up of 53,559 males and 27,138 women and children.

In normal times, the maximum, minimum, and average wage in each of these industries and the hours of labor are as follows:

Industry	WAGES PER DIEM ¹		HOURS OF LABOR	
	Skilled	Lowest paid unskilled	Maximum	Minimum
Breweries and distilleries.....	\$0.60	\$0.24	14	9
Glass and pottery.....	0.78	0.24	13	10
Food products.....	0.86	0.08	14	9
Gas and electricity.....	0.83	0.32	16	13
Shipyards.....	0.68	0.36	9	9
Clothing.....	1.12	0.30	11	8
Furniture and other wood products.....	1.12	0.16	12	9½
Building materials.....	1.13	0.32	16	8
Textiles.....	0.94	0.30	12	9
Metal products.....	1.45	0.26	11	8
Paper and printing.....	0.96	0.23	14½	9
Leather and fur products.....	1.30	0.21	10¼	9
Drugs and chemicals.....	0.98	0.16	13	8
Tobacco products.....	0.62	0.24	10	9
Carriages and other vehicles....	0.66	0.24	10	9½

The financial crisis precipitated by the European War, the restriction of credits by the banks, together with the uncertainty as to the future, led to the immediate curtailment of production and an alarming increase of unemployment in all manufacturing centers. The reports received from the Provincial Intendentes indicate the following situation with reference to industrial unemployment in September, 1914:

Province	Unemployed
Valparaíso.....	4,142 (in the city of Valparaíso).
Santiago.....	1,059 (in the city of Santiago).
Concepción.....	No statistics given, but many industries closed.
Cautín.....	Sawmills closed.
Valdivia.....	Some breweries and factories working half time. Many closed.
Coquimbo.....	Many unemployed. Factories have discharged portion of personnel.

¹ The American equivalent of wages is calculated on the rate of exchange prevailing prior to the outbreak of war.

In addition to the widespread unemployment, the laborers who were retained in the factories were compelled in many instances to submit to a reduction of wages. The latter part of 1914 and the early months of 1915 witnessed but little improvement in the condition of factory labor. Employers are unwilling to resume operations on full time until they can see their way clear with reference to the bank credits, currency stability, and market conditions. Not until August, 1915, was a marked improvement in the manufacturing industries noticeable. The recovery of the nitrate industry has reacted on manufacturing activities, stimulating the resumption of work. Although there still exists considerable unemployment, there is every indication that by the close of the year 1915 manufacturing will again have reached a normal level.

The Agricultural Laborers of the Central and Southern Provinces

The agricultural laborers suffered less in consequence of the European War than any other section of the laboring population. This is due to two circumstances. First, to the fact that the agricultural interests of Chile suffered but little as a result of the war, inasmuch as the prices of food products showed a marked tendency upwards. The difficulties which the large landowners encountered were due almost entirely to the restriction of credits, which in some sections led to the discharge of farm laborers. The second circumstance which explains the relative immunity of the agricultural laborer from the disastrous effects of the war is the exceedingly low wage and low standard of life of this section of the population. Chile is a country of large landed estates. Agricultural labor receives a wage which ranges from twenty to forty cents¹ per day, together with a ration

¹ At the rate of exchange immediately preceding the war.

which usually takes the form of from one to two and one-fifth pounds of beans. In addition, the proprietor furnishes habitation which is usually of the most primitive type. Laborers are usually given the use of a small tract, about half an acre, on which they may raise produce for their personal consumption. This latter privilege is only enjoyed by the so-called "Inquilinos," who differ from the ordinary farm laborer by reason of more permanent tenure. In most provinces they also receive a somewhat higher wage than the more transient day laborer but in return are required to perform certain extra services. In some cases they are obliged to furnish to the landowner one additional laborer. It should, furthermore, be added that the exceedingly low wage of the "Inquilino" is sometimes supplemented by minor earnings of wife and children in the dairies attached to the estates.

The great influx of nitrate laborers from the North led to a superabundance of farm labor. During the latter part of 1914 there was a tendency to reduce wages, as will be seen from the following reports from the agricultural provinces.

Province	PER DIEM WAGE ¹ WITHOUT RATION		PER DIEM WAGE ¹ WITH RATION	
	Inquilino	Laborer	Inquilino	Laborer
Aconcagua.....	\$0.30	\$0.28	\$0.25	\$0.21
Valparaíso	0.40	0.34	0.30	0.22
O'Higgins	0.40	0.34	0.28	0.26
Colchagua	0.40	0.40	0.30	0.22
Curicó.....	0.30	0.28	0.22	0.20
Taica	0.40	0.37	0.18	0.22
Nuble	0.20	0.18	0.16	0.22
Concepción	0.24	0.24	0.23	0.22

Government Measures to Meet the Problem of Unemployment

The labor problem confronting the Chilean government at the outbreak of the European War was an exceedingly serious one, owing to the necessity of transporting so

¹ Estimated in American gold.

large a proportion of the nitrate labor of the North to the central provinces. Although receiving a relatively high wage, the habit of saving has never been developed in the poorer classes. The government saw itself confronted with the necessity not only of giving free transportation to a great mass of laborers and their families, but also of supporting them unless some plan could be devised to secure employment for them. To meet this emergency, a National Labor Bureau was organized which has done excellent service in securing employment for at least a portion of the great army of unemployed. Between August 18, the date of the establishment of the Bureau, and November 17, 1914, this agency had secured employment for 7,686 persons distributed as follows:

Character of Work	Number for Whom Employ- ment Secured
Public works	1,530
Public roads	3,863
Factories and workshops	458
Agriculture	1,835
	7,686

The magnitude of the unemployment problem is made evident by the fact that during the first four months after the outbreak of the war the government brought 29,919 persons from the nitrate district to the ports of Coquimbo and Valparaiso. The situation was further complicated by the fact that the nitrate laborer of the North is the least adaptable and the most restless element of the laboring population. It soon developed that employment could only be found for a relatively small percentage of the total and that in many cases offers of employment were met with a refusal to work for a wage less than that to which they had been accustomed in the nitrate fields. The result was that the government found itself compelled to support the greater part of the unemployed for a period of several months. Throughout the country

the situation was regarded as involving a serious menace to the social order of the Republic.

The return of the nitrate laborers to the North has also served to improve somewhat the condition of agricultural labor. For the harvesting of the present crop there will probably be a scarcity of labor which will, no doubt, bring about some little improvement in the wages of the transient farm laborer.

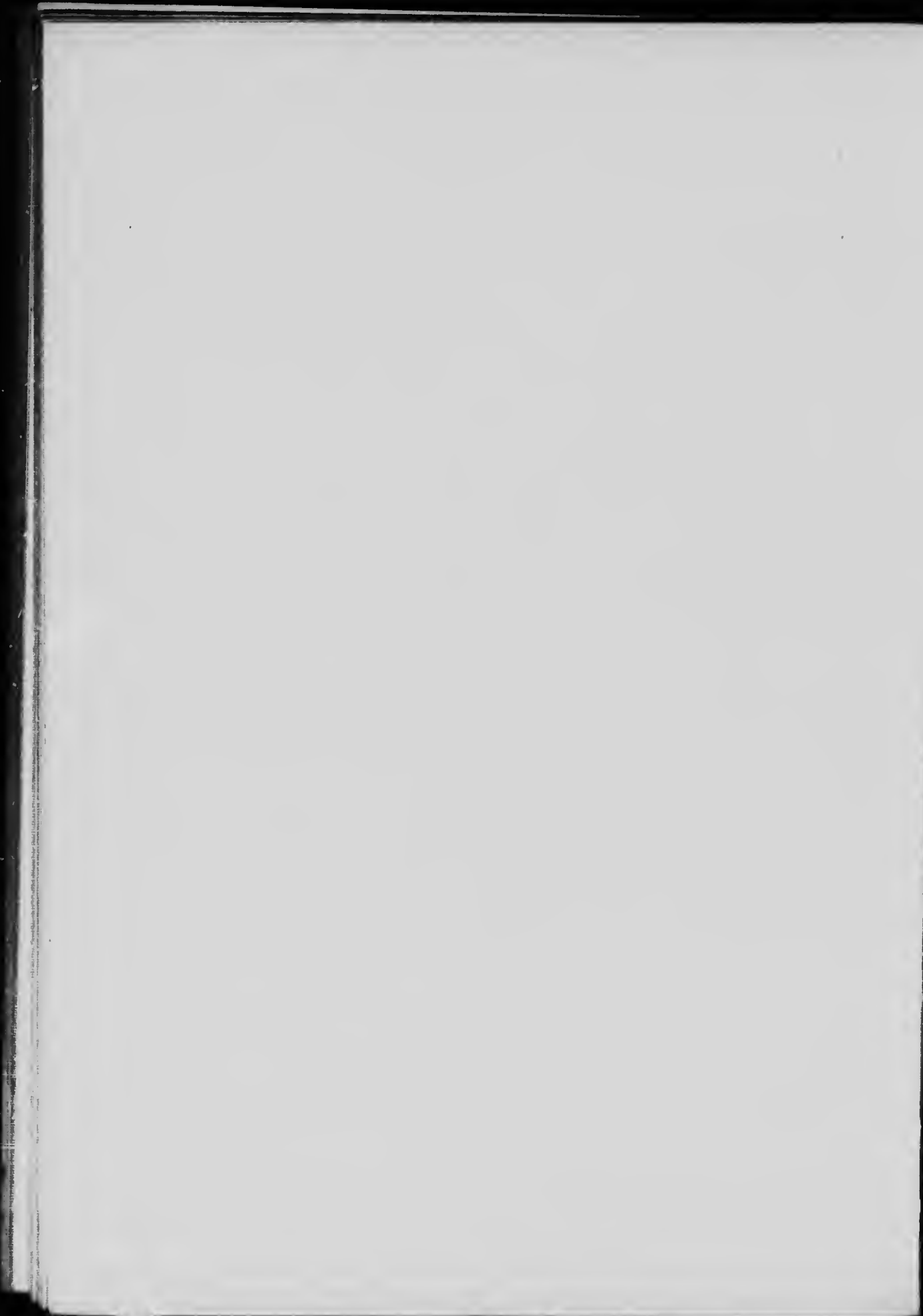
While there has been this distinct improvement in the condition of mining and farm labor, the status of the factory workers has not advanced in the same ratio. The manufacturing establishments that closed are slowly resuming operations and those that discharged a portion of their labor force are not adding thereto. Restriction of credits by the banks, together with the uncertainties incident to fluctuating exchange, has created an atmosphere of distrust which is proving a serious obstacle to the recovery of manufacturing enterprise.

CONCLUSION

The widespread suffering caused throughout Chile by reason of the European conflict is but another indication of how deeply the vital interests of the republics of America have been affected. Not only were government finances seriously impaired but almost every branch of industrial life suffered a severe shock.

From a strictly governmental point of view the crisis has not been an unmixed evil, inasmuch as it has brought into the foreground of public attention the necessity of undertaking some systematic revision of the national fiscal system. Basic industrial and economic conditions in Chile are today essentially healthy, and will enable the country rapidly to emerge from the crisis precipitated by the war.

Another effect of the war, which may prove of indirect benefit to the country, is the fact that the crisis precipitated by the European conflict has served to impress upon the business men of the country the dangers involved in the dependence on foreign capital. The bitter lessons of the recent financial crisis have shown that what Chile needs most is a larger measure of financial independence, and that this can be secured only through the development of the habit of saving amongst her people. The wealth and resources of the country and the energy of the inhabitants would lead one to expect a larger sum total of native capital. With such great resources, with no racial problems of a serious or vital character, Chile's future depends entirely on the extent to which her population is willing to make present sacrifices for larger ultimate returns.



APPENDICES

APPENDIX A

IMPORTS OF UNITED STATES FROM CHILE¹

Year Ending June 30

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Antimony ore, regulus or metal, lbs. (dut.).....	341,597	.....	\$20,496	\$.....
Articles, the growth, produce, or manufacture of the United States, returned (free) .....	.....	.....	19,317	20,474
Art works (free) .....	.....	.....	92	169,250
Bladders, integuments, etc. (free) .....	.....	.....	6,099	5,572
Chemicals, drugs, dyes and medicines:				
Extracts for tanning, lbs. (free) .....	.....	157,795	.....	8,509
Iodine, crude or resublimed, lbs. (free)	351,236	195,030	739,734	423,293
Soda, nitrate of, tons (free)	573,773	561,209	19,942,419	17,808,763
All other (free) .....	.....	.....	10,320	101,588
Coal, bituminous, tons (free)	20 (dut.)	1,007	182 (dut.)	6,035
Copper, and manufactures of:				
Ore (copper contents), lbs. (free)	14,096,944	15,213,097	2,242,784	1,974,429
Matte and regulus (copper contents) lbs. (free) ..	13,436,913	13,289,555	2,165,418	2,004,898
Pigs, ingots, etc., lbs. (free)	14,004,408	14,426,881	2,248,311	2,145,748
Fertilizers (free) .....	.....	.....	.....	395,948
Fruits and nuts:				
Walnuts, unshelled, lbs. (dut.)	443,713	3,120,824	33,832	253,622
Furs and fur skins, undressed (free) .....	.....	.....	32,256	7,144
Hides and skins, etc.:				
Goat, dry, lbs. (free)	31,674	15,028	5,081	2,538
Household and personal effects, etc. (free) .....	.....	.....	5,637	8,721
India rubber scrap, fit only for remanufacture, lbs. (free)	33,746	.....	2,450	.....
Iron ore, tons (free).....	.....	6,600	.....	7,829

¹ "Trade of the United States with other American Countries, 1913-1914."
(United States Bureau of Foreign and Domestic Commerce.)

APPENDIX A

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Lead and manufactures of:				
Lead ore (lead contents) lbs. (dut.)	4,223,430	5,315,937	\$ 88,692	\$ 182,622
Bullion and base bullion lbs. (dut.) .....	.....	2,673,030	.....	91,994
Meat products; sausage cas- ings, lbs. (free)	18,862	.....	14,639	.....
Tin in bars, blocks, pigs, etc., lbs. (free)	39,173	.....	12,418	.....
Wax: beeswax, lbs. (free) ..	32,926	108,983	9,874	36,975
Wool of the sheep, hair of the camel and other like animals:				
Class 1: Clothing, lbs. (free) .....	.....	127,299	.....	33,969
Class 3: Carpet, lbs. (free) ..	.....	73,225	.....	9,383
Wool, hair of the camel, goat, alpaca, and other like animals:				
Class 1: Clothing, lbs. (dut.)	33,085	23,380	4,982	3,735
Class 3: Carpet, lbs. (dut.)	16,693	40,948	1,673	4,027
Zinc ore (zinc contents) lbs. (dut.)	2,304,742	.....	46,095	.....
All other free and dutiable goods .....	.....	.....	2,619	15,062
Total free of duty....	.....	.....	\$27,458,211	\$25,184,940
Total dutiable .....	.....	.....	197,209	537,188
Total imports of merchandise.....	.....	.....	\$27,655,420	\$25,722,128

EXPORTS OF UNITED STATES TO CHILE ¹

DOMESTIC EXPORTS	QUANTITIES		VALUES	
	1913	1914	1913	1914
Abrasives:				
Wheels, emery and other	\$4,868	\$2,188
All other	14,357	8,807
Agricultural implements and parts of:				
Hay rakes and tedders	2,063	3,720
Mowers and reapers	87,579	85,155
Planters and seeders	3,949	3,885
Plows and cultivators	119,614	94,496
Threshers	108,236	107,330
All other, and parts of..	112,207	94,882
Aluminum, and manufac- tures of	1,218	1,938

¹ "Trade of the United States with other American Countries, 1913-1914."
(United States Bureau of Foreign and Domestic Commerce.)

APPENDIX A

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Animals:				
Cattle, No.	20	17	\$ 2,260	\$ 3,725
All other, including fowls			2,573	641
Asbestos (manufactures of)			2,919	4,974
Asphaltum:				
Unmanufactured (tons) .	129	1,158	4,129	35,875
Manufactures of			73	14,472
Babbitt metal (lbs.)	139,213	65,633	32,599	11,231
Blacking (including shoe paste and polish and other)			27,413	18,506
Brass, and manufactures of			30,737	31,603
Breadstuffs:				
Barley (bush.)	184,062	1,459	134,633	790
Oatmeal (lbs.)	474,434	477,321	23,424	24,845
Preparations of, for table food			4,742	4,645
Wheat flour (bbls.)	28,781	152,324	114,414	574,456
All other			13,925	1,404
Broom corn, and manufactures of			18,802	9,705
Brushes			843	2,178
Cars, carriages, other vehicles, and parts of:				
Automobiles—				
Commercial (No.)		2		10,743
Passenger (No.)	78	195	109,982	160,194
Parts, not including engines and tires			4,711	22,405
Carriage (No.)	358	109	40,288	12,118
Cars, passenger and freight:				
For steam railways—				
Passenger			192,639	138,547
All other			271,002	7,375
For other railways			57,443	134,991
Bicycles, tricycles, etc.			2,566	2,506
Motor cycles (No.)	39	37	8,134	7,967
Wagons (No.)	81	131	7,577	13,161
Wheelbarrows, pushcarts and handtrucks			10,827	7,490
All other, and parts of			15,479	21,379
Cement, hydraulic (bbls.) ..	38,449	26,203	51,823	35,807
Chemicals, drugs, dyes and medicines:				
Acids—				
Sulphuric (lbs.)	327,673	4,150,910	3,889	48,277
All other			2,172	3,415
Baking powder (lbs.) ...	22,037	29,762	7,929	10,663
Calcium carbide (lbs.) ..	1,584,000	2,797,440	49,231	72,289
Medicines, patent or proprietary			235,640	200,918
All other			70,444	71,874
Clocks and watches and parts of:				
Clocks, and parts of			17,000	9,523
Watches, and parts of ..			19,979	18,553
Coal, bituminous (tons) ..	112,067	83,876	324,153	252,490
Confectionery			2,879	3,494

APPENDIX A

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Copper, manufactures of:				
Pigs, ingots, and bars				
(lbs.)	1,309	117,636	\$ 239	\$ 21,010
Plates and sheets (lbs.)	4,837	408,125	932	76,268
Rods and wire (lbs.) ...	10,295	79,772	1,727	13,702
All other manufactures of	.....	.....	4,626	147,832
Cotton manufactures of:				
Cloths—				
Unbleached (yds.)	8,346,412	9,590,339	537,105	660,091
Bleached (yds.)	1,870,722	448,252	129,032	44,069
Colored (yds.)	280,214	215,378	23,269	18,585
Laces and embroidery ...	.....	.....	.....	3,750
Waste, cotton (lbs.)	27,782	52,644	2,123	3,741
Wearing apparel—				
Corsets .....	.....	.....	3,037	9,895
Knit goods .....	.....	.....	17,583	22,576
All other .....	.....	.....	31,215	37,431
All other .....	.....	.....	65,310	89,406
Dental goods .....	.....	.....	20,338	21,839
Earthen, stone and China				
ware:				
Bricks, fire (M)	158	245	16,434	23,822
Tiles, except drain .....	.....	.....	1,225	6,242
All other .....	.....	.....	8,610	15,016
Eggs (doz.)	270	9,875	73	2,414
Electrical machinery, appli-				
cances, and instruments:				
Dynamoes, or generators..	.....	.....	15,777	19,687
Insulated wire and cables	.....	.....	.....	45,952
Interior wiring supplies,	.....	.....	.....	26,175
etc. (including fixtures)	.....	.....	.....	.....
Lamps—				
Arc (No.)	81	90	1,958	1,880
Incandescent—				
Carbon filament (No.)	73,296	53,275	8,377	6,780
Metal filament (No.)	89,349	31,996	17,701	8,344
Motors .....	.....	.....	104,279	92,747
Static transformers .....	.....	.....	.....	37,839
Telephones .....	.....	.....	4,600	3,374
All other .....	.....	.....	201,542	166,141
Explosives:				
Cartridges .....	.....	.....	60,950	45,220
Dynamite (lbs.)	961,850	912,485	100,384	107,087
Gunpowder (lbs.)	5,452	15,625	1,741	5,270
All other .....	.....	.....	25,893	15,134
Feathers .....	.....	.....	8,283	7,489
Fibers, vegetables, and tex-				
tile grasses, manufac-				
tures of:				
Cordage (lbs.)	206,169	202,177	22,444	22,436
Twine—				
Binder (lbs.)	320,111	1,013,110	22,121	87,213
All other .....	.....	.....	6,055	8,077
All other manufactures of	.....	.....	2,279	7,888
Fish:				
Salmon, canned (lbs.)...	2,318,720	2,123,237	143,574	134,678
Shellfish .....	.....	.....	11,928	13,745
Fly paper .....	.....	.....	5,562	4,003

APPENDIX A

55

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Fruits:				
Green, ripe or dried			\$ 2,585	\$ 5,466
Prepared or preserved ..			6,121	5,136
Furniture of metal			14,710	16,345
Glass and glassware			30,823	40,224
Glucose (lbs.)	745,753	586,801	18,658	14,808
Gold and silver, manufac- tures of, including jewelry			12,686	2,831
Grease			75,056	80,208
Household and personal ef- fects			16,871	13,216
India rubber, manufactures of:				
Belting, hose and packing			57,970	71,113
Boots and shoes—				
Boots (pairs)	2,001	930	8,720	4,643
Shoes (pairs)	20,434	9,957	12,677	5,676
Tires:				
For automobiles			2,844	10,636
All other			31,076	19,805
All other manufactures of			24,812	27,383
Ink			12,201	12,408
Instruments and apparatus for scientific purposes:				
Medical and surgical in- struments			6,059	5,750
All other			12,564	19,341
Iron and steel, and manu- factures of:				
Pig iron (tons)	938	1,465	13,637	18,289
Bars or rods of steel (lbs.)	12,281,617	14,535,376	206,922	237,433
Bolts, nuts, rivets and washers (lbs.)	783,209	1,011,037	29,421	35,986
Builders' hardware—				
Locks			30,424	30,829
Hinges and others			51,611	69,033
Car wheels (No.)	950	590	8,030	4,501
Castings, n.e.s.			3,627	8,648
Cutlery:				
Razors			3,126	6,364
Table			3,894	6,232
All other			16,609	15,154
Enamelware:				
Bath tubs (No.)	291	278	5,368	5,372
Lavatories and sinks ..			11,612	5,705
All other			3,324	2,463
Firearms			38,861	45,789
Machinery, machines and parts of:				
Adding machines (No.) ..	8	38	2,271	6,898
Air-compressing ma- chinery			17,646	11,484
Cash registers (No.) ..	139	188	21,211	25,373
Engines and parts of:				
Electric locomotives (No.)	5	2	16,918	4,112

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Iron and steel, and manu- factures of: (Cont.)				
Internal combustion—				
Gas, stationary (No.)	6	10	\$ 4,432	\$ 1,798
Gasoline—				
Marine (No.) ..	25	58	2,599	5,942
Stationary (No.)	17	28	1,853	4,398
Traction (No.) ..		4		10,540
Steam—				
Locomotives (No.) .	18	23	202,753	190,944
Stationary (No.) ..	20	28	13,579	23,904
Traction (No.) ...		17		32,679
All other engines (No.)	58	28	12,480	7,920
Parts of			27,478	74,657
Laundry machinery ...			4,401	7,427
Lawn mowers			8,296	436
Metal working machinery			43,930	85,168
Milling machinery (flour and grist)			58,246	42,576
Mining machinery			182,017	274,421
Printing presses			7,438	5,074
Pumps and pumping- machinery			73,527	61,713
Refrigerating machinery including ice-making machinery			21,299	18,656
Sewing machines			94,774	42,886
Shoe machinery			58,247	43,350
Sugar mill machinery ..			7,345	370
Typesetting machines, linotype and others ..			9,421	29,379
Typewriting machines ..			117,023	95,026
Windmills			22,226	27,686
Wood working ma- chinery:				
Sawmill machinery ..			37,099	24,147
All other			39,799	28,049
All other machinery, and parts of			260,647	327,058
Nails and spikes:				
Cut (lbs.)	5,105,182	5,775,023	91,089	105,249
Railroad spikes (lbs.)	175,677	202,664	3,400	3,395
Wire (lbs.)	352,860	520,799	7,749	10,627
All other (including tacks) (lbs.)	328,026	333,882	16,213	16,791
Pipes and fittings (lbs.)	3,540,988	7,926,138	111,932	226,780
Rails for railways, of steel (tons)	13,939	7,302	458,827	253,166
Railway track material, etc. (except rails and spikes)			55,747	83,939
Scales and balances			42,587	43,195
Sheets and plates:				
Iron—				
Galvanized (lbs.) ..	11,160,505	88,191	337,075	2,653
All other (lbs.)	350,344	221,005	8,427	5,537

APPENDIX A

57

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Iron and steel, and manu- factures of: (Cont.)				
Steel—				
Plates (lbs.)	4,008,851	7,557,603	\$ 67,529	\$ 130,276
Sheets (lbs.)	25,005,801	22,969,765	750,000	630,098
Stoves, ranges, and parts of			23,093	23,072
Structural steel and iron (tons)	5,859	8,759	232,181	450,213
Tin plates, terneplates, and taggers tin (lbs.)	4,799,351	4,252,521	180,188	157,442
Tools, n.e.s.:				
Axes (No.)	16,311	14,948	10,454	10,011
Hammers and hatchets			15,268	15,636
Saws			44,836	33,435
Shovels and spades			3,231	7,758
All other			120,955	117,129
Wire and manufactures of wire:				
Barbed (lbs.)	2,781,555	3,517,910	70,093	83,783
All other (lbs.)	20,209,057	7,790,153	408,531	156,445
Manufactures of			53,153	50,067
All other manufactures of iron and steel			257,752	244,364
Lamps, chandeliers, etc. (ex- cept electric)			26,295	15,513
Lead, manufactures of			10,006	128,628
Leather and tanned skins, and manufactures of:				
Leather and tanned skins—				
Belting			27,607	13,672
Patent			35,599	56,305
Upper—				
Calf (sq. ft.)	176,376	218,532	47,173	62,312
Glazed kid (sq. ft.)	2,524,490	1,317,127	482,929	238,924
All other			16,082	5,820
All other leather and tanned skins			2,194	10,641
Manufactures of boots and shoes:				
Children's (pairs)	616	2,010	685	2,153
Men's boots and shoes (pairs)	48,204	38,817	140,626	118,587
Women's (pairs)	12,394	18,311	33,722	51,621
All other			43,412	26,595
Leather, imitation			1,675	2,076
Meat and dairy products:				
Meat products—				
Beef products—				
Beef, pickled and other cured (lbs.)	68,748	24,000	7,461	2,578
Oleomargarine, imita- tion butter (lbs.)	79,293	131,311	8,655	14,481
Tallow (lbs.)	133,505	404,029	9,104	26,546
All other (lbs.)	78,667	8,559	9,561	1,236
Hog products—				
Hams and shoulders (lbs.)	16,882	25,061	2,655	4,226

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Meat and dairy products:				
(Cont.)				
Lard (lbs.)	1,934,928	1,866,147	\$229,413	\$ 222,012
Pork, pickled (lbs.)	34,500	28,500	3,901	3,151
Lard, compound, and other substitutes for lard (lbs.)	1,791,802	1,411,417	149,563	130,432
All other			3,010	4,622
Dairy products—				
Butter and cheese (lbs.)	1,539	8,245	519	1,469
Milk—				
Condensed (lbs.) ...	25,531	118,501	2,118	9,288
Other, including cream			3,712	1,393
Motor boats	11	8	16,186	8,035
Musical instruments, and parts of:				
Pianos—				
Player pianos (No.)...	75	11	24,647	3,705
All other (No.)	169	161	41,490	41,585
Perforated music rolls ..			9,363	2,882
All other, and parts of..			3,360	1,344
Naval stores:				
Resin (bbls.)	11,413	4,739	80,907	24,298
Turpentine, spts. of (gals.)	131,005	84,460	65,342	43,569
Oilcloth			2,926	10,972
Oils:				
Animal (gals.)	1,578	3,225	1,275	2,872
Mineral—				
Crude, including all nat- ural oils, without re- gard to gravity (gals.)	500	6,636,000	27	118,500
Refined or manufactured—				
Illumination oil (gals.)	7,961,224	9,125,953	900,771	1,028,155
Lubricating and heavy paraffin oil (gals.)	1,774,587	1,960,331	392,945	418,279
Gasoline (gals.)	34,615	747,930	9,348	166,724
All other, naphtha, etc. (gals.)	324,696	53,189	77,725	12,412
Residuum, etc.—				
Gas oil and fuel oil (gals.)	58,244,417	77,566,178	923,801	1,365,661
All other (gals.) ...	19,857,507	64,543,524	303,912	978,662
Vegetable, fixed or expressed—				
Cottonseed (lbs.)	3,639,389	4,921,207	296,752	436,672
Linseed or flaxseed (gals.)	3,423	5,058	1,859	2,598
All other			18,325	11,982
Paints, pigments, colors and varnishes:				
Ready-mixed paints (gals.)	17,464	16,051	29,412	26,829
Varnish (gals.)	8,845	7,364	9,768	10,712
All other, including crayons			24,100	23,552
Paper, and manufactures of:				
Bags			1,980	2,884
Books, music, maps, en- gravings, etchings, etc.			269,879	109,509
Carbon paper			1,563	8,108

APPENDIX A

59

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Paper, and manufactures of: (Cont.)				
Paper hangings			\$ 4,440	\$ 2,374
Playing cards			7,970	6,032
Printing paper—				
News print (lbs.)	3,091,416	1,493,973	75,692	37,141
All other (lbs.)	1,047,745	913,419	48,207	40,865
Wrapping paper (lbs.) ..	20,681	27,545	802	1,071
Writing paper and en- velopes			12,228	6,968
All other			19,778	18,951
Paraffin, and paraffin wax (lbs)	1,477,818	2,282,161	54,023	92,098
Pencils (except slate) and pencil leads			4,825	3,641
Penholders and pens			3,168	6,501
Perfumeries, cosmetics, and all toilet preparations..			21,645	25,437
Phonographs, graphophones, gramophones and rec- ords, and materials for			41,395	44,213
Photographic goods:				
Cameras			6,372	6,158
Motion picture films (lin. ft.)	2,400	116,977	175	5,468
Other sensitized goods ..			14,143	17,978
All other			5,000	5,134
Plated ware, except cutlery and jewelry			26,498	27,303
Plumbago, or graphite, and manufactures of			1,341	2,297
Roofing felt, and similar materials			5,439	2,462
Silk, manufactures of			1,159	5,276
Soap—				
Toilet, or fancy			113,862	91,330
All other (lbs.)	202,562	244,971	12,593	16,290
Spirits, wines, malt liquors, and other beverages ..			4,524	6,793
Stone (including marble)..			6,700	6,304
Surgical appliances (not in- cluding instruments) ..			16,411	28,351
Tin, manufactures of			7,824	5,992
Tobacco, and manufactures of			5,647	7,045
Toys			7,474	4,094
Trunks, valises, and travel- ing bags			1,748	2,610
Type (lbs.)	9,088	7,676	3,658	2,959
Typewriter ribbons			6,063	4,777
Vegetables:				
Potatoes, except sweet po- tatoes	7,709	8,950	5,474	7,152
Vegetables, canned			1,360	12,310
All other			3,685	4,762
Wood and manufactures of: Logs and other round tim- ber (M. ft.)	10	500	100	5,000

APPENDIX A

Wood and manufactures of: (Cont.)	QUANTITIES		VALUES	
	1913	1914	1913	1914
Lumber:				
Boards, planks and deals—				
Fir (M. ft.)	63,271	58,229	\$776,626	\$ 727,970
Oak (M. ft.)	349	270	27,099	21,869
White pine (M. ft.)	98	299	4,850	9,692
Yellow pine, pitch and other (M. ft.) ...	218	363	12,093	20,844
All other (M. ft.)..	386	126	23,581	10,568
Staves (No.)	99,875	151,091	18,504	28,278
Doors, sash and blinds ..	.....	.....	4,642	8,551
Furniture .....	.....	.....	151,004	115,869
Incubators and brooders..	.....	.....	3,361	3,924
Trimmings, moldings and other house finishings..	.....	.....	9,209	4,228
Woodenware .....	.....	.....	3,379	3,121
All other manufactures of wood .....	.....	.....	83,506	90,947
Wool, manufactures of:				
Wearing apparel .....	.....	.....	359	3,385
All other .....	.....	.....	15,336	6,510
Zinc, and manufactures of..	.....	.....	1,874	4,240
All other articles .....	.....	.....	46,649	56,712
TOTAL DOMESTIC EXPORTS			\$16,064,969	\$17,408,724
TOTAL FOREIGN EXPORTS			11,794	23,668
TOTAL EXPORTS OF MER- CHANDISE			\$16,076,763	\$17,432,392

APPENDIX B

TRADE WITH UNITED STATES, 1913-1914¹

Months	EXPORTS		IMPORTS	
	1913	1914	1913	1914
January-July	\$18,979,949	\$14,745,891	\$9,129,794	\$10,203,716
August	2,314,912	1,207,613	1,393,553	596,196
September	3,010,449	2,104,309	1,375,822	462,470
October	934,114	2,238,189	2,221,572	1,369,168
November	1,827,465	2,286,714	578,270	700,890
December	2,486,934	1,655,997	1,917,901	295,178
TOTAL FOR YEAR..	\$29,553,823	\$24,238,713	\$16,616,912	\$13,627,618

IMPORTS AND EXPORTS, 1913¹

	IMPORTS FROM	EXPORTS TO
Great Britain	\$55,548,341	\$36,028,943
Germany	30,772,742	29,578,138
United States	30,413,385	20,089,158
France	8,847,885	6,623,260
Belgium	5,674,869	5,671,426
GRAND TOTAL	\$142,801,576	\$120,274,001

THREE PRINCIPAL IMPORTING COUNTRIES²

	UNITED STATES	UNITED KINGDOM	GERMANY	TOTAL IMPORTS
1908	\$8,697,209	\$30,630,809	\$27,555,784	\$97,202,960
1909	9,601,084	31,842,746	22,435,041	95,399,399
1910	13,369,774	34,340,573	26,296,071	108,627,188
1911	15,775,969	40,795,279	32,696,171	127,381,479
1912	16,806,341	38,599,283	33,189,070	122,075,994
1913 .....	.....	.....	.....	.....
1914 .....	.....	.....	.....	.....
1915 .....	.....	.....	.....	.....

¹ Otto Wilson: Forecast of Trade with South America in 1915. U. S. Bureau of Foreign and Domestic Commerce.

² Otto Wilson: South America as an Export Field. U. S. Bureau of Foreign and Domestic Commerce.

CHILEAN COMMERCE (1913) ¹

ITEMS	TOTAL TRADE
Imports (d)	\$120,274,001
Exports (d)	144,653,312
Nitrate	111,454,397
Copper	10,337,360
Wool	3,383,653

(d) Figures include gold and silver.

CHILE—STATISTICS OF MANUFACTURES

1911

KIND OF MANUFACTORIES	ESTABLISHMENTS	CAPITAL
Alcohol, beverages, etc.	297	\$8,222,433
Pottery, ceramics and glassware	6	559,000
Foods and food preparations	807	27,601,757
Lighting, heating and combustibles ..	37	6,073,374
Dock-yard and ship repair stations....	27	1,065,868
Clothing, etc.	711	5,880,542
Wood and manufactures	676	8,555,065
Construction materials	89	1,921,780
Textiles	32	3,508,027
Metals and manufactures	805	5,933,705
Furniture	189	1,155,970
Paper, printing presses, etc.	290	5,277,145
Hides and skins, and manufactures ...	1,199	11,249,800
Chemical and pharmaceutical products	130	4,046,385
Tobacco and manufactures	98	986,076
Vehicles	188	1,063,566
Various	141	1,164,964
TOTAL	5,722	\$94,257,466

¹ U. S. Commercial Reports, January 2, 1915.

APPENDIX B

CHILE

STATISTICS OF EXPORTS¹

Countries	Year	Animal Products	Vegetable Products	Mineral Products	Various Products	Total
United Kingdom.	1910	\$5,163,334	\$3,950,165	\$38,714,734	\$8,702	\$47,835,025
	1911	4,365,549	1,537,889	47,345,056	9,788	53,258,282
	1912	4,001,008	2,739,885	48,360,235	1,521	55,102,649
	1913	5,478,774	3,069,561	46,999,462	544	55,548,341
Germany	1910	5,054,807	3,118,996	31,845,984	21,520	40,041,307
	1911	1,783,225	807,318	20,479,097	73,267	23,142,907
	1912	1,610,946	852,774	23,698,525	37,525	26,199,770
	1913	1,861,578	1,143,821	25,031,886	23,410	28,060,695
United States....	1910	1,651,860	944,357	28,147,807	28,718	30,772,742
	1911	1,636,874	553,293	15,879,252	9,567	18,078,986
	1912	287,755	124,628	24,264,290	4,196	24,680,878
	1913	96,201	217,671	19,237,176	884	19,551,032
France	1910	86,433	1,601	24,425,951	580	24,514,565
	1911	20,097	185,698	30,207,534	87	30,413,396
	1912	158,361	210,213	31,057,978	7,689	31,434,241
	1913	1,171,868	50,180	3,947,551	58,707	5,237,296
Belgium	1910	1,157,620	18,744	4,650,608	38,206	5,865,178
	1911	1,385,147	29,413	6,223,415	30,595	7,668,570
	1912	1,546,571	26,735	7,251,877	22,702	8,847,885
	1913	670,441	16,828	3,548,944	8,915	4,245,128
Netherlands	1910	141,317	59,259	3,236,880	1,031	3,438,487
	1911	149,224	158,329	3,166,268	5,206	3,479,029
	1912	57,233	229,648	4,322,816	1,263	4,610,960
	1913	250,522	188,017	5,286,020	310	5,674,869
Spain	1910	42,583	45,062	3,352,460	4,453	3,444,558
	1911	12,814	46,742	2,301,287	.....	2,450,843
	1912	50,966	52,685	3,338,118	.....	3,441,769
	1913	34,438	119,369	4,081,630	102	4,235,548
Uruguay	1910	55,652	14,147	4,400,303	.....	4,470,102
	1911	32,898	18,002	3,239,967	38	3,290,905
	1912	.....	1,406	1,987,458	1,398	1,990,262
	1913	220	29,234	1,081,025	1,171	2,011,650
Argentina	1910	.....	.....	1,834,410	.....	1,834,410
	1911	.....	2,190	987,174	.....	987,174
	1912	1,003	209,577	.....	1,186	3,376
	1913	613	431,181	.....	14,330	225,909
Japan	1910	716	228,945	787,661	2,021	1,222,076
	1911	33,773	302,204	2,483,624	4,305	2,717,680
	1912	18	231,922	86,172	1,707	424,036
	1913	72,935	849,401	.....	2,438	234,378
Bolivia	1910	105,451	1,003,274	10,291	116,147	1,048,774
	1911	34,384	1,020,441	13,471	76,466	1,198,662
	1912	25,488	855,908	17,388	56,348	1,128,561
	1913	292,134	1,132,627	94,832	58,658	1,034,880
Other Countries..	1910	.....	.....	7,094	79,684	1,511,508
	1911	120	109	730,215	26	730,241
	1912	.....	22	1,018,296	1,132	1,019,657
	1913	1,204	.....	657,114	109	957,245
Total	1910	.....	.....	1,332,277	.....	1,333,481
	1911	67,447	859,350	818,961	4,537	823,495
	1912	41,804	565,212	1,347	357,870	1,286,014
	1913	64,519	489,103	2,501	56,934	666,541
Total	1910	80,540	445,103	2,259	30,421	586,302
	1911	13,516	250,938	11,200	30,433	547,276
	1912	120,056	1,107,517	0,666	15,595	289,715
	1913	89,955	414,584	2,471,177	16,635	3,716,285
Total	1910	55,506	1,237,806	2,244,402	13,176	2,762,177
	1911	82,621	1,098,799	4,023,066	8,151	6,225,459
	1912	64,386	502,645	1,561,759	4,223	2,747,402
	1913	.....	.....	3,448,132	14,458	4,030,621
Total	1910	\$8,823,644	\$8,074,523	\$98,234,336	\$650,408	\$115,782,911
	1911	7,668,660	5,381,686	107,483,237	243,111	120,676,723
	1912	7,580,962	7,240,054	122,604,742	157,395	137,643,153
	1913	9,207,102	7,080,585	126,366,417	147,172	.....
Total	1910	7,966,018	6,082,806	93,208,408	170,080	.....
	1911	.....	.....	.....	.....	.....
	1912	.....	.....	.....	.....	.....
	1913	.....	.....	.....	.....	.....

¹ For figures for 1910-11-12, see Otto Wilson: South America as an Export Field. U. S. Bureau of Foreign and Domestic Commerce.

