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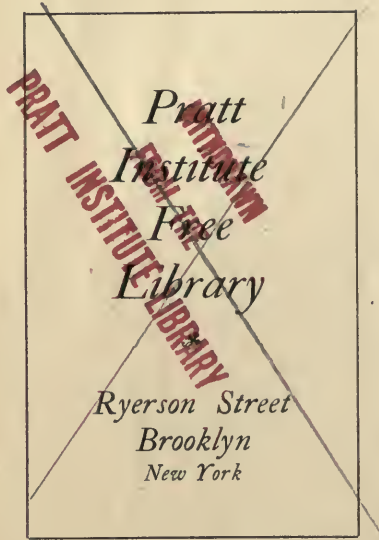
PRELIMINARY ECONOMIC STUDIES OF THE WAR

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EARLY ECONOMIC EFFECTS OF THE WAR  
UPON CANADA

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







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Carnegie Endowment for International Peace

DIVISION OF ECONOMICS AND HISTORY

JOHN BATES CLARK, DIRECTOR

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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

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EARLY ECONOMIC EFFECTS OF THE  
EUROPEAN WAR UPON CANADA

BY

ADAM SHORTT

Formerly Commissioner of the Canadian Civil Service, now Chairman,  
Board of Historical Publications, Canada

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

BY

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## 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

favoured 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:

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

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

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



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 Kyoto, Japan.

SIR GEORGE PAISH, London.

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

EUGEN PHILIPPOVICH VON PHILIPPSBERG,<sup>1</sup> 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; formerly Mayor of Tokio.

THEODOR SCHIEMANN,<sup>2</sup> 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 WIESER,<sup>3</sup> 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-

<sup>1</sup> Died, June, 1917.

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

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

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.*

**EARLY ECONOMIC EFFECTS OF THE WAR  
UPON CANADA**



## EDITOR'S PREFACE TO THE PRELIMINARY STUDIES OF THE WAR

THE following brief study of the early effects of the war upon Canadian industry, trade and finance, was prepared by the author, Dr. Adam Shortt, formerly of the Civil Service Commission of Canada, now Chairman of the Board of Historical Publications, to indicate in a general way the character of the extended study of the same subject which he is preparing for publication later. The chapter contains so much of interest and value to the people of our own country at the present juncture that it seemed proper to the Director of the Division of Economics and History and to the editor to publish it. It is the first of a series of preliminary studies on the effects of the war. It is the intention of the Endowment to prepare and issue in due time a comprehensive documentary and critical history of the war. Such a history, however, is a work of years and could not be prepared in time to be of immediate service to our people in their conduct of the war. Inasmuch as the experiences of the Allied countries already at war have valuable lessons for us, especially within the first year of our participation, it has been decided to issue a series of preliminary war studies, setting forth their experiences.

The effects of the war on the trade, the external policies of nations, and also upon their internal economic organization, will be far reaching. The cost of the war will be so great that expenditures upon measures promotive of welfare are likely to be long postponed. The programs of social betterment, legislation looking to the improvement of conditions of labor, the suppression of poverty, improvements in the conditions of employment of women and children, better health conditions, better

education, social health and life insurance, probably will all be delayed on account of the tremendous expenditures of the conflict. The probable necessary reorganization of public budgets to meet the burden of taxation will leave little income to apply to such projects. The whole world had reached a high state of expectation with reference to general social betterment, budgets were being constructed and financial systems were being molded with that in view. The war has dimmed the hopes of the reformer about these matters, and doubtless will make improvement of the conditions of living a harder problem than before.

For the cost of the war is to be reckoned not merely in destruction of wealth. It is draining the working power of the world, and is adding to the number less capable of taking care of themselves. It has increased the army of the maimed, the halt, the blind and the dependents, and has imposed upon all the rest of us the task of caring for them as a sacred duty and a debt of gratitude for the sacrifice which they have made for us. But the cost and the sacrifice we cannot stop to count now, for we have entered the war and must do our part to bring it to a successful conclusion. The realization of the staggering burden of the cost of the war will not prevent any one of the nations at war from continuing to do its part; but a study of this cost in all its bearings may have a sobering effect in years to come when peoples and rulers may perhaps contemplate war again. For that reason among the preliminary studies, which it is our purpose to publish, will be one or two on the cost of the war and its financial management.

A second subject needing serious study is the alleged trend toward Socialism. Socialists point with rejoicing to the vast extension of government control over, and participation in, industry on account of the war. In Great Britain the government is running the railroads and is virtually in absolute control of industry. The

railroad system is operated as a unit for the single purpose of securing efficiency in war production. Steel and munition factories, many in number and great in output, are entirely operated by the government. Thousands of other factories have been operated for some time under government control, although immediately by the owners. It is estimated that probably about seven million men and women are at present employed in industries under the control of the British government. Moreover, the government has entered the field of the middleman and is doing collective buying on a very large scale, just as we ourselves are.

Similar conditions prevail in France and in Italy. The government of Italy is said now to control in the neighborhood of 2,500 establishments, with approximately three million workers. In France the control of the government over industry is even more extended and intense. Even countries not in the war have found it necessary, on account of the disturbance of industry and the shortage of supplies of one kind and another, to undertake economic functions in character and extent hardly thought of hitherto.

The culmination of the whole process seems to be reached in the project for collective purchasing for all the Allies in the matter of metals, food and other articles.

On the steps which the United States has taken it is not necessary to enlarge. We are controlling the iron and steel industry, the coal business, the wheat market, and are reaching indirectly to the control of retail trade in a variety of articles.

These things are welcomed by Socialists as steps towards the permanent establishment of Socialism. Many other people look upon them with fear because they have the same belief. It is important, therefore, to study and discuss this trend and its aftermath.

In the opinion of the editor of this series, a distinction must be made between Socialism and mere state economic

activity, which may be called stateism. To be sure, the state, or, at any rate, the government in a socialistic state, is the active agent for carrying on the economic life of the people. But government activity of this kind is not truly socialistic unless the purposes and the methods of the government reflect the desires and the will of the people. An autocratic state might occupy its government quite as fully with the performance of economic functions as could be desired by any Socialist, but the resulting condition would not be one of Socialism. In short, the mere extension of government economic functions is not of itself the establishment of Socialism. Germany is commonly spoken of as a state which has gone far on the road to Socialism. Not so. Germany is an example of stateism. Her government has in a measure provided the conditions of economic welfare for all her people, but she has done so at the expense of their individual initiative and freedom. A minority—the ruling class—have determined what should be done for the rest; and that not primarily for the good of the rest, but in order that they might be more suitable, or useful, or available, for the purposes of the few. If such economic comfort were achieved as a result of the free action of the majority, it would be Socialism in the true sense. Even then, however, it is questionable whether the attainment of a larger economic comfort through Socialism would not entail a cost, in the sacrifice of freedom, that would be in the long run too great.

Whether the extension that is taking place now in the war will be socialistic, even if it is permanent, will depend, therefore, on the will of the people; for certainly the government of a democratic country cannot continue such economic activities against the will of the people. Now the great majority of the people of the country are willing to submit to inconveniences due to the extension of government functions in unusual lines to accomplish more effectively the specific purposes of the



war. It is more than doubtful whether they will submit to such inconveniences and interferences when the dangers of war have passed. Moreover, whatever efficiency is gained in the conduct of the war by the extension of the economic activities of the government, is secured very largely at the price of tremendous interference with ordinary business relations, economic conditions, and ways of living, such as the people of this country will probably not endure excepting under the stress of patriotic motives. In other words, in the opinion of many, the efficiency necessary to win the war is gained at a cost of interference in our ordinary economic life that will not be tolerated in time of peace. There is no more evidence today that the government performance of industrial and mercantile services will be more efficient in the future than it ever has been; or that it will even approximate to the efficiency secured by individual initiative. Government conduct of industries for the purpose of conducting a war efficiently is a very different thing from such conduct for the greatest service in the more diverse purposes of human life in times of peace. Indeed, what constitutes efficiency in the former conditions may be inefficiency in the latter.

As to the alleged efficiency of government operation of the railways, for example, we must remember that this efficiency is secured at a cost. Only those who are accustomed to use the railroads frequently have a suitable realization of the inconvenience and loss injected into private business by the coordination and cooperation which the war has made necessary for the purposes of the war. The business of the war is at present imperative, and must displace everything else. Efficiency in carrying it on must be attained without much regard to the cost involved in the disturbance of passenger and freight traffic for other purposes.

Those who are now managing these new activities of

the government are, in the main, so-called captains of industry who have built up under the system of individualism and competition the great structure now available for government use. There is no reason to think that their services would be readily available for such a purpose excepting in an emergency. Their experience, however, will undoubtedly give them a somewhat different outlook after the war, when the old order of things begins to return. It is to be hoped that they will have that higher point of view and broader outlook concerning the welfare of the public at large which, by establishing a higher ethical standard for business, will do away forever with the phases of capitalistic exploitation which have so justly drawn condemnation in the past.

It must be remembered, too, that if the government is to direct industry, it must direct labor. There is no reason to think that the workers of the country, whether organized or unorganized, are disposed to turn over to bureaucratic control the determination of important questions concerning their work and their welfare.

For these reasons it seems to the editor that the present trend does not necessarily indicate a tendency toward the permanent establishment of Socialism properly so-called, nor even a tendency toward a permanent extension of government participation in economic life. That there will be some such extension for a time at least is very likely, but the general result is just as likely to be the establishment of better standards in the conduct of privately conducted business. Excessive profits and other forms of exploitation will be better understood by the public; those who have been guilty of such practices will be more easily discovered, and their own point of view undoubtedly will be largely modified. In other words, the permanent result of our present activity is just as likely to be the conduct of business with larger emphasis of service to public welfare as an extension of direct government management and control.

A third line of study which is brought prominently to the attention of the world by the war is that of national economic independence. The war had not been going on long before it became evident to some of the warring nations that they had allowed themselves to become completely dependent on Germany, for example, not only for some articles necessary for the prosecution of the war, but for many others needed in ordinary industries. Dyes are a familiar illustration. Even foodstuffs were in some cases obtained from enemy sources of supply. The discovery of these conditions naturally stirred people of different countries, and brought out anew a demand for national economic independence on the part of each nation, so that its power to defend itself in war would not be impaired. Other motives, however, led to emphasis of the same demand as the war progressed. A conference among the Entente Allies was reported to have been held for the formation of an economic alliance, to continue after the war, the purpose being to develop trade among the Allies and their colonies, to the exclusion, so far as possible, of the trade of Germany and of her allies.

The situation has intensified again the demands of the protectionists and exponents of nationalism, who, even in times of peace, advocate national economic self-sufficiency. For, of course, the movement is not one that originated with the war. It has come to notice from time to time as one nation or another has developed its foreign trade. It is not many years since central European statesmen talked about a "Zollverein," or Mid-European tariff union against the United States. British statesmen have from time to time discussed the advisability of an imperial customs union against the rest of the world. But the war has given a new emphasis and a new aspect to the proposed policy, and it will need careful study in order not only to prevent mistakes on the part of particular countries, but to lay

the foundations for lasting peace on the basis of international amity.

Of course, no peace can be permanent if its conditions are such that each nation must continue the struggle for economic self-sufficiency; for a country could be economically independent only if it had within its own boundaries all the natural resources necessary for the purpose. National lines, however, are not drawn with this in view.

Moreover, national self-sufficiency would mean in the long run a restricted national life, for no country could have within its own boundaries all the resources and conditions necessary to satisfy its people, meet its requirements of defense, and enable it to make progress. New ways of living, new ideals, new culture, new conditions, would require changed economic methods and different economic resources. Consequently, self-sufficiency at one time is insufficiency at another, so that there can be no assurance of permanence for such a policy. Moreover, the country which had resources that prompted it to rise to a higher civilization might still be the object of attack of these which were less fortunate. Such a policy would tend to national isolation and the destruction of intercourse and to act as a check on the progress of civilization. There is no ideal worthy of the world and worthy of the peace which we all hope to establish, if not permanently, at any rate for a long period, excepting the ideal of free intercourse, whereby the resources of the earth shall be made available through the processes and agents that are most advantageous to the whole world. But to make the people of the world satisfied that an international policy based on that ideal is safe, it will be necessary to find means of insuring that no one country will find its existence or independence in danger because it does not include in its industrial system all the things and processes necessary to defend itself against attack. In other words, we must find some

way of seeing to it that aggression against a nation will not be possible. Unless we can do that, economic internationalism, after the experience of the present years, will be merely a dream.

The practicableness of economic internationalism will depend in part, after the war, on the methods adopted by the world for the improvement of backward parts of the earth. The colonization of Africa and the development of other places will have to be undertaken in some way which will preserve what may be described as the international equities. No arrangements can be regarded as morally justifiable which do not have as their first purpose the uplifting of the people already occupying the land. Closely connected with this question is that of the expansion of older countries by immigration. One of the arguments frequently put forth by Germans in defense of the present war is that Germany needs territory for its surplus population. The world cannot afford to admit such a plea. Germany does not need territory, although people of German origin may need more space in which to live. They can get it, as can other people, by going to less densely occupied parts of the earth; but they may not in this day and generation insist that they may take with them also the German government. They are free to settle and live their lives in other countries, and under other flags, which admit them. On such a principle a constant flux and reflux of population is possible without impairment of the rights of other people or the authority of other governments.

These and other subjects, as has been stated, are brought to the forefront of public discussion by the present war. Inasmuch as it is the purpose of the Carnegie Endowment for International Peace to spread information and add to knowledge in such ways as will bring about a better understanding among the nations of the earth, it is proper that a series of studies into such

questions should be undertaken by the Endowment. Preliminary to more extended inquiries into these and kindred subjects, arrangement has been made for their early publication.

*November 28, 1917.*

DAVID KINLEY,  
*Editor.*

## EARLY ECONOMIC EFFECTS OF THE WAR UPON CANADA

To appreciate the true effect of the great war upon Canadian economic conditions, it is essential to realize what was the economic situation of the country during the period which immediately preceded the war. This war which burst upon the world so suddenly did not strike the Dominion in the midst of a great period of expansion, but rather at the close of one. A fairly prolonged era of exceptional capital investment and active trade was drawing to an end, while readjustment and stock-taking were in process. What the next phase of economic development might be was the subject of active discussion by publicists, financiers, promoters, manufacturers, and merchants alike.

Canada, one of the younger countries, containing probably the largest area of unexploited powers of nature attractive to European immigrants, was especially interested in the practical outcome of readjustment. During the decade ending with 1913 the country had undergone a process of economic expansion which, in proportion to its previous trade and population, probably exceeded that of any other country. The evidence for this may be found in the correlated factors of the investment of foreign capital, the building of railroads, the influx of immigration, the expansion of towns and cities, and the speculation in land values connected therewith, particularly in western Canada and the eastern cities affected by the western expansion. These factors naturally reacted upon all other forms of economic activity in the country, making great demands for goods and services

of all kinds, enhancing prices and wages, stimulating industries, expanding markets, and encouraging by precept and example a speculative spirit throughout the country.

A few central facts will illustrate the movement during this decade. The population of Canada between the census periods of 1901 and 1911 had increased from 5,371,000 to 7,206,000, an increase of 1,835,000 or 150,000 more than during the three previous decades.<sup>1</sup> The percentage increase was greater than that of any other country. This increase was chiefly due to immigration; the number of immigrants arriving in the country for the census decade 1901-11 being 1,453,391, which is within 380,000 of the total increase of population for the decade. During the three years from 1911 to 1913 the country received a further increase in immigration of 1,067,753.<sup>2</sup> During the decade of 1903-13 the total trade of the country had expanded from \$467,000,000 to \$1,085,000,000, or nearly 232 per cent. The expansion in imports was much greater than that in exports. Imports increased from \$241,000,000 to \$692,000,000, being 287 per cent, while exports increased from \$225,000,000 to \$393,000,000, or 180 per cent.<sup>3</sup> This, as we shall find, was due to the special conditions of expansion under the influence of the influx of foreign capital.

While, for the decade 1903-13, the capital of the Canadian banks expanded only from approximately \$76,500,000 to \$116,000,000, or 51 2-3 per cent, the note circulation increased from \$58,750,000 to \$105,500,000, or 80 per cent. At the same time dominion notes, or the government legal tender notes, expanded from \$39,000,000 to \$116,750,000, or practically 200 per cent.

<sup>1</sup> The Canada Year Book, 1915. Published by Authority of the Minister of Trade and Commerce. Ottawa, The King's Printer, 1916, p. 64.

<sup>2</sup> *Ibid.*, p. 111.

<sup>3</sup> Report of the Department of Trade and Commerce for the Fiscal Year ended March 31, 1916, Part I, Canadian Trade. Ottawa, 1917, pp. 6 and 7.



Deposits of the public with the banks increased from \$379,000,000 to \$985,000,000, or 160 per cent, while bank loans to the public increased from \$406,000,000 to \$972,000,000, or 139½ per cent. Bank clearings increased from \$2,750,000 to \$9,250,000.<sup>1</sup> On the other hand, notwithstanding the immensely increased capacity for saving during the period, the deposits in the Post Office and Government Savings Banks fell during the decade from \$60,750,000 to \$57,000,000.<sup>2</sup> This, however, is quite in accordance with the speculative atmosphere of the period. The total dominion revenue on consolidated account expanded from \$66,000,000 to \$168,500,000, while the expenditure on consolidated account, that is, excluding the special capital expenditure, increased from \$51,500,000 to \$112,000,000, while the total expenditure including capital investments increased from \$61,750,000 to \$144,500,000.<sup>3</sup> It might appear from the figures for the beginning and ending of the period that a considerable surplus had been accumulated. During some of the intermediate years, however, while the railways and other public works constructed or subsidized by the government were under construction, the total expenditure greatly exceeded the total revenue; as, for instance, in 1909, when the total revenue was \$85,000,000 and the total expenditure \$133,000,000. The actual result for the whole decade is shown in the increase of the national debt. The total debt increased from \$361,000,000 to \$483,000,000, but this was offset by public assets; in other words, the capital valuation of the government railroads and other public works for which a considerable portion of the total debt had been incurred. Deducting these assets, the net debt had increased from \$261,000,000 to

<sup>1</sup> Report of Department of Trade and Commerce, 1916, Part IV, pp. 32 and 33.

<sup>2</sup> Canada Public Accounts for Fiscal Year ended March 31, 1916. Ottawa, 1917, pp. 106 and 109.

<sup>3</sup> Public Accounts, 1916, pp. 24 and 25.

\$814,000,000:<sup>1</sup> a very modest increase it must be admitted for a rapidly expanding country such as Canada.

The period 1903-13 being one of rapid expansion of railroads and other public works, we find that the railroad mileage in operation had increased from 18,988 to 29,304, or 54 per cent, while the gross earnings increased from \$96,000,000 to \$256,500,000, an increase of 166 per cent.<sup>2</sup>

Some consideration is necessary as to just how the expansion indicated in these typical statistics affected the country as a whole and in its several parts. Also in what condition it left the country to meet the revolutionary economic changes occasioned by the outbreak of the war. The first great factor is of course the enormous increase of immigration which occurred during the period in question, amounting to 2,276,252. Even allowing that a considerable number of the immigrants did not remain long in the country, the United States returns showing an immigration from Canada to the United States during the same period of 363,614,<sup>3</sup> still the total increase of the population was very large and involved a great stimulus to the economic expansion of the country. It is an interesting fact that the great majority of these immigrants came to Canada with the professed purpose of settling on the land. The Canadian government had solemnly pledged itself by Act of Parliament and in the interests chiefly of the trade unions to assist only two classes of immigrants, viz.: those going on the land and those entering domestic service. General observation, however, supported by the census returns of 1911, indicates that the great majority of the immigrants, from Great Britain at least, went into the towns and cities. They were accompanied also by a good many from the older districts of the eastern provinces of Canada and

<sup>1</sup> Public Accounts, 1916, p. 26.

<sup>2</sup> Report of Trade and Commerce, 1916, Part IV, p. 47.

<sup>3</sup> From statistics furnished by Canadian immigration officials.

even from the older settled portions of southern Manitoba. Thus while the urban population of the country increased by 1,259,165, the rural population increased by only 576,163. This increase of rural population was more than represented in the western provinces. In all of the eastern provinces except Quebec, the rural population declined during the decade; even in the two western provinces of Manitoba and British Columbia the increase in the urban population considerably exceeded that in the rural. Thus in the western provinces from Manitoba to the Pacific Coast while the rural population increased by 638,494 the urban population in these almost entirely new districts increased by 478,526. In the previous decade the relative increases in these regions were, rural population 399,344; urban population 198,825, or as two to one in favor of the rural population.<sup>1</sup>

Almost the only permanent services rendered by the urban population in the newly settled districts are those of distribution and transportation of goods, with little manufacturing, except lumber in the timber districts and coal mining in Alberta and British Columbia. It is therefore an interesting question as to how so large an urban population could be maintained in a country which is chiefly concerned with the breaking up of new lands and the simpler forms of agriculture. On a closer survey it is found that the greater part of the urban population in the western provinces was supported by the building of the railroads which opened up the country, but more especially through the construction of the very towns and cities which grew up along these railroads and into which the newer population poured, stimulating and expanding the general atmosphere of speculation and the promotion of local enterprises of a purely temporary nature. Needless to say, not only was the railroad construction

<sup>1</sup> Canada Year Book for 1915, p. 77.

which pioneered the way into the wilderness financed on borrowed capital, but so were practically all of the towns and cities which sprang up in the wake of the railroad construction. Land speculation, in the shape of indefinite subdivisions and the sale of town and city lots, was at the bottom of most of the rapid expansion of the western municipalities extending far beyond any actual needs of the time.

What disguised from the people of the West the purely temporary character of the prosperity of the newer towns and cities was the very large amount of business being done in these urban centers and the exceptional number of people who found very profitable employment, with much consequent demand for housing, food, clothing, household equipment, and luxuries of various kinds. All this, however, was being supported chiefly on borrowed capital. When the flow of capital ceased the growth of the towns and cities ceased also. Those employed in the building trades must go elsewhere or starve. On their departure they left empty houses and a glutted real estate market. Also when their high wages ceased to flow into the coffers of the local merchants, they too were in distress and must either curtail or close up their establishments. Thus the shrinkage of the prosperity built up on the very construction of the towns themselves led to many unexpected hardships for those who remained and who had only the requirements of the neighboring settlers to sustain their urban businesses, or, in the case of the larger centers, the declining distributing trade for the smaller towns.

This process repeated in varying degrees from the smaller towns to the larger cities throughout a great area such as the Canadian West, linked up by ever-expanding railroad systems, represented many hundreds of millions of additional capital in their construction and equipment and naturally involved an immense stimulus

to the economic activity of the country, while bringing great volumes of trade and prosperity to the older sections of the country where manufactures of various kinds had been established.

Such was the period of exceptional expansion which continued during the decade closing the year before the outbreak of the great war. A few observations on the special effect of such a period of expansion on a half-matured country such as Canada may be necessary in order that one may appreciate the changes wrought by the war conditions.

In the first place, the absorption of so much of the incoming population and wealth of the country in the building of railroads and urban centers, prevented hundreds of thousands of people from going on the land or engaging in any immediately productive enterprises. The fact that so much of the capital and energy of the country was being employed in the production of forms of wealth which, however attractive and desirable in themselves, yet represented no available products to meet popular needs for the immediate present or future, greatly affected not only the imports and exports of the country but had an important bearing upon the prices of the standard articles of consumption. In all cases the millions of capital which were absorbed in the construction of great public works, such as railways, and the building of towns and cities, were expended very rapidly, while the services to be rendered by these, even assuming that they might in time amply repay the outlay, would return very slowly. In any case, only a few of the mercantile establishments in the expanding towns and cities made any pretense of immediately replacing the capital invested in them.

This being so, what we find is that during such a period of expansion there must be but few exports to meet or replace the imports, which are stimulated by the expenditure of scores of millions of borrowed capital.

In fact, the investment of so much borrowed capital in either non-productive or but slowly productive forms means the creation of a great demand in the country itself for domestic supplies, such as all forms of food, lumber, coal, and other native products which would normally be exported. It means also a great increase in the demand for foreign imports in the way of food, clothing, implements, and general supplies which are not produced within the country.

When we turn to the statistics of Canadian trade for the decade of expanding immigration, great borrowing of capital for railroads and other public works, the building of new towns and cities and the expanding of older ones, we find that practically all of the borrowed capital from abroad came to Canada in the shape of imported goods. The excess of the import of bullion over its export was not more than sufficient to meet the normal needs for an increased reserve in specie to offset the normal expansion of paper currency required to meet the needs of an increased trade. Thus we find that, for the decade between 1903 and 1913, imports increased from \$241,000,000 to \$692,000,000, while exports increased only from \$225,000,000 to \$393,000,000, the former being an increase of 187 per cent, while the latter represented an increase of only 97 per cent.<sup>1</sup>

In 1899, for the first time in five years, the imports exceeded the exports, but it was not until 1903 that the average imports gained an ascendancy over the exports. That year they did so to the extent of about \$15,250,000. Thereafter the imports had decidedly the ascendancy and by 1913 the excess of imports had extended to \$298,750,000 for that year. During the decade the accumulated excess of imports over exports amounted to \$1,164,000,000.<sup>2</sup> This excess of imports represented practically that portion of our borrowings abroad which

<sup>1</sup> Report of Trade and Commerce, 1916, Part IV, p. 50.

<sup>2</sup> *Ibid.*

were transmitted to Canada. In this there were only \$26,000,000 of gold, which was not more than necessary to meet the additional requirements of the increased note issues of the government and the banks. Most of the borrowings which were not transmitted to Canada served to offset the interest on the national debt, which for this period amounted to upwards of \$123,000,000.<sup>1</sup> The interest on the provincial and municipal debts on railway bonds and on many other corporate securities held in Britain had also to be provided for out of the borrowings, inasmuch as the exports were all offset in meeting only a portion of the imports.

In the course of the year 1912 a somewhat uneasy feeling began to pervade the financial world as to the possibility of the optimistic or speculative spirit having led to numerous doubtful or unwise investments. In consequence there ensued very generally throughout the world during 1913 a much more cautious spirit. This naturally applied more particularly to those countries where extensive new developments were taking place, and thus included Canada. The curtailment of investment was therefore felt in Canada to an increasing extent. The immediate result as reflected in Canadian experience was a shrinkage of funds for public and corporate enterprises, various government enterprises were checked, the western municipalities had perforce to curtail their expenditures, the railroads diminished their capital expenditure, and, as an immediate effect, quite a number of persons connected with the extensive enterprises previously carried on were thrown out of employment. A check was also put upon the immigration of those who sought employment in the cities. The secondary consequences of these primary conditions were revealed in a marked diminution in the business of furnishing materials and equipment of construction, as also in that of supplying both the necessaries and luxuries of

<sup>1</sup> Public Accounts, 1916, p. 27.

life, freely purchased by communities enjoying generous incomes whether from personal services or profits.

As the most widespread and highly speculative accompaniment of good times had been the dealings in urban and suburban real estate, especially in the western provinces, there was an immediate and effective check in this extensive line of speculation, followed by a very pronounced reaction in realty values which continued during the latter part of 1913, and was still very marked when the war broke out in 1914. There was at once a double reaction in economic conditions during the twelve months before the beginning of the war. First and most extensive, a reaction in purely speculative values; secondly, a shrinkage in the output of numerous industries connected with the supply of materials and equipment for the building of railroads, towns and cities, and the miscellaneous equipment, including internal furnishings, in thousands of public, business, and private buildings; lastly, and in consequence of the foregoing, there was a shrinkage in the supply of goods for the daily wants of a population which had been rapidly increasing in numbers and purchasing power.

In time, of course, in Canada as in other countries, there would have been a readjustment of employment. Many persons would have transferred from the cities to the country and from employments which furnished no immediate returns for the satisfaction of daily wants to those which furnished such supplies alike for domestic consumption and export. The war, however, was precipitated before this readjustment could take place. While there was much unemployment and consequent distress throughout the country during the winter of 1913-14, there was certain to have been much greater distress during the ensuing winter of 1914-15. The fact that the war burst upon the world while Canadian economic conditions were in this critical situation must be kept steadily in mind in attempting to estimate the



effects of the war upon the economic condition of the country.

One of the most immediate and striking factors in the situation was the facility for voluntary recruiting which the critical condition of lessened employment provided. Only those who have been actively engaged in recruiting can realize how many and varied are the motives and influences which lead men to voluntarily enlist for military service. In a war such as the present where so much that is vital to the very existence as well as the civilization of the race is at stake, there is room for the very widest range and combination of motives in taking up arms. But whether the motives be of a higher or of a lower type or, as in the great majority of cases, of some intermediate quality, the fact that a great many persons find themselves free to enlist in the sense of not having any fixed employment or business engagements that cannot easily be postponed, was a very important factor in leading to such an immediate and ready response to the call to join the colors and to risk everything in the service of the country. Such was the situation in Canada when the war broke out.

One immediate effect of the war was to greatly increase the paralysis of trade and industry, as also the financial, transportation, and other interests depending upon them, and thus to enlarge the field of unemployment actually and prospectively. Of the large numbers who found themselves actually or in prospect without employment, the number of recent immigrants from Britain, chiefly located in the newer urban centers of the West and in the larger cities of the East, naturally constituted a large proportion. Thus one of the earliest and most important economic effects of the war was the relief of the congested condition of the labor market at the time of its outbreak. A secondary and important consequence was that the assigned pay and separation allowances which were arranged for the wives and de-

pendents of the enlisted soldiers provided for the essential wants of many who would otherwise have been in distress by reason of the head of the household being wholly or partially out of employment. When these allowances to the dependents were speedily supplemented, in all necessary cases, by payments from the Patriotic Fund, derived from voluntary subscriptions, the general distress due to unemployment was almost at an end and cannot recur before the close of the war at least.

Naturally those native Canadians who felt most strongly the responsibility to respond to the call of their country, whether having at the time of the outbreak of the war permanent occupations or not, were among the first to offer their services and swelled the numbers of those presenting themselves for enlistment in the early months of the war. In fact, at this stage of the conflict the military authorities had many more offers of enlistment than they could possibly provide for. Evidently impressed by the readiness of so many citizens to enlist, the government estimated that there would be little difficulty in securing as volunteers all the troops required and perhaps more than the civil requirements of the country could spare. As the gravity and duration of the war began to be more fully realized the offers of troops by the Canadian government rapidly expanded. Immediately on the outbreak of the war 30,000 men and supplies were offered. Then in July, 1915, 150,000 troops were promised. In October, 1915, the number was increased to 250,000. Finally, on January 1, 1916, the numbers promised were raised to 500,000.<sup>1</sup> As we shall have occasion to observe, this larger number proved more difficult to find on the voluntary principle than was at all anticipated in the early stages of the war.

The rapid enlistment during the first year of the war would itself have prevented the unemployment problem

<sup>1</sup> Unrevised Hansard, Jan. 17, 1916, p. 25.

from becoming a matter of any great difficulty. But the immediate revival of the national borrowings and expenditure on a rapidly developing scale, and the transformation into munition factories of many of the largest manufacturing establishments of the country, whose businesses had been severely checked by the previous period of reaction, resulted in a sharp transition from stagnation to feverish production. This was particularly true of those industries connected with iron and steel, clothing, leather, vehicle, and other supplies called for in connection with war equipment. This immediately stimulated the demand for all forms of labor.

Again, the rapid development of munition industries, the transport of large quantities of raw materials to be converted into finished articles, the enormous movements of troops with all their personal and camp equipments and food supplies, not only greatly augmented the import and export of various lines of supplies, but incidentally led to a remarkable expansion of the transportation services and the industries subsidiary to them, still further increasing the demand for labor and many other forms of supplies. Thus between the demand for men as troops and as workmen, the condition of business stagnation and unemployment in which Canada found itself when the war broke out and for some weeks afterwards, was rapidly dissipated by a new, strange, and wholly abnormal situation incidental to the outbreak of war. The situation was marked by an unlimited demand for men, materials, and supplies at ever-increasing prices and rates of remuneration, the whole financed by rapidly succeeding loans doubling and trebling their predecessors each year.

One of the most important features in connection with this economic revolution was the fact that practically none of this borrowing, manufacturing and price making which prevailed proceeded on the basis of ordinary economic investment, production, and marketing. In borrowing

the funds to be expended, there was no longer any question as to whether the returns to be expected would replace any part of the capital or meet the interest, much less furnish a margin of profit. No economic return was expected from most of the goods supplied or the services rendered. Almost all economic activities became subsidiary to the prosecution of the war, and in meeting the demands of the state for men and supplies, prices and rates were made without reference to whether industry could be maintained at the cost of production and the rates of profit and remuneration for services which were soon prevailing. This does not altogether mean that there was no competition in business, or that the rates established by public institutions, such as those governing railway transportation, were entirely disregarded. But it does mean that where the ultimate demand for finished products and services emanated from the Canadian, British, or allied governments who had no thought of economic returns but only of speedy and adequate supplies for the conduct of the war, the ultimate question was not whether the prices or profits were reasonable or unreasonable, economically possible or not, but simply at what effective and necessary rates the indispensable supplies and services could be obtained.

In this connection it is worth noting that as far as the prosperity which results from an active period of production and high prices is concerned, there is no difference between the investment of funds in enterprises which will prove highly remunerative to the investors, or in enterprises which will prove to be entirely unprofitable even to the extent of losing the whole or at least the greater part of the capital invested. It is only when an enterprise, in which capital is invested and which is beneficially promoting trade and industry, comes to the practical test as to whether its output of goods or services at prevailing rates will make an adequate return on the expenditure, that the question of profit or loss

to the investors, and therefore to the communities served, is determined. While the capital is being invested the stimulus to trade and industry is just as great from the enterprise doomed to failure as from one destined to success. So in the case of the expenditure on war. The prosperity due to the disbursements of large war loans is as beneficial to the trade and industry of the country, while the expenditure continues, as if it were made with the most certain prospect of ample returns on the funds expended. Only after the war expenditure is completed and no economic returns are forthcoming to replace the wealth destroyed do the unfortunate consequences make themselves felt, in the absence of any replacement of the capital expended, with which to meet the next stage of capital production. At the same time, the interest on the vanished wealth requires to be met, while new efforts are called for to replace the vanished funds. This double burden of replacing wasted capital and paying the interest on what has vanished falls upon the remaining industry and capital of the country. The measure of the burden thus imposed is the proportion which the capital destroyed bears to that which remains, making allowance in the case of individual countries for new capital which may be borrowed. At the same time one recognizes the additional burdens entailed by borrowed capital as compared with the accumulations of domestic savings.

Up to the present, however, Canada knows practically nothing of this unfortunate aftermath, for even the interest on past war loans is being met from new loans or the excess profits tax, which latter is only part of the exceptional capital expenditure due to war conditions. The prosperity of those immediately concerned in the production of war supplies and services has already extended to those other economic classes who cater to these primary beneficiaries, whether in the way of supplying raw materials, secondary goods and instruments

for production, or in the way of meeting their daily wants in the lines of food, clothing, housing, fuel, transportation, amusements, and luxuries of various kinds.

On the other hand, high earnings and high profits lead to increased personal expenditure, thus making an increased demand not only for all manner of the necessities of life but for most of its luxuries as well. Further, where light labor and personal services are in demand there are increased openings for women and the junior members of families. Thus a larger proportion of the total population left in the country after the departure of the troops is finding profitable employment. When there is added to this the further fact that supplementary allowances are made to the wives and families of most of the overseas troops, it is obvious that an exceptionally large spending fund, in proportion to the total population, is in circulation. This manifests itself not only in exceptional demands for the ordinary means of life, but also for most of the luxuries and amusements available for modern urban dwellers. As will be pointed out later, these broad facts are effectively exhibited in the trade statistics of the country.

Only those who receive fixed salaries or other unexpandable incomes, in the way of annuities and returns from permanent investments, suffer without compensation from the ever-increasing prices which prevail. High prices, however, may outrun even the increasing profits and wages obtained by those in the secondary economic classes dependent upon the primary beneficiaries of war supplies and service. As, however, these classes are either well organized or have other methods of protecting themselves by insisting upon increases in wages and profits, there results a general clamor for increased incomes and diminished outlay. In the latter case this takes the form of demands for lower prices for at least the most essential requirements of life. These claims tend eventually to concentrate upon the

government in the form of somewhat antagonistic demands upon our rulers for at once increased wages and diminished prices. Since the government itself has emancipated its operations from the conditions of all ordinary economic production and consumption, the unreflecting masses are apt to demand that it should do for the people at large what it has been able to do for itself. In a word, there seems to be no valid reason why the government should not forthwith abolish by Order in Council the old aphorism "*ex nihilo nihil fit.*"

In any case, the general economic outcome of the war, after nearly three years duration, is that the country has been converted from a condition of economic depression, with growing anxiety in industrial and commercial centers, into a condition of exceptional prosperity with high wages and ready employment, and with high profits in large volume followed by increased and even lavish expenditure. This condition, accompanied by great foreign demand for the staple means of life, is resulting in very high prices without, however, any corresponding increase in supplies, because the profits and incomes obtainable in the urban centers still exceed those in the rural districts. In a word, the economic condition of the country has come to be entirely dominated by the war, and is therefore increasingly artificial and abnormal in almost every line of activity.

Having outlined the general situation of Canada for the decade immediately preceding the outbreak of the great war and having shown what was the more or less critical condition of the country at the time of the declaration of war, and also having given a general indication of the temporary economic revolution which has been produced by war conditions, we are now in a position to appreciate the significance of the concrete facts relating to the various phases of the economic activity of Canada and its relations to foreign countries and world

conditions. We may deal first with the general trade of the country, then extend our survey to the underlying and conditional factors of production including labor conditions and prices, transportation, exchange, and finance, national and corporate.

As we have seen, Canadian imports, reckoned according to the fiscal year ending the 31st of March, culminated in a maximum of \$686,000,000, exclusive of coin and bullion, in 1912-13, or \$670,000,000 for domestic consumption. During the year of partial reaction preceding the war, imports not only ceased to expand but receded by over \$50,000,000, falling to \$618,500,000 for domestic consumption. During the following year, 1914-15, covering eight months of the war, they receded another \$163,000,000, dropping to \$455,000,000 for domestic consumption. During the year 1915-16, entirely under war conditions, owing to the immensely augmented expenditures of the government and the revival of manufacturing on a large and profitable scale, with the incidental benefit of a bountiful harvest, not only was the downward tendency of imports arrested but the tide was turned in an upward direction to the extent of over \$50,000,000, the total amounting to \$507,000,000 for domestic consumption.<sup>1</sup> The continuing tide of prosperity for the past year, 1916-17, has led to a still greater increase of imports. The preliminary returns for the fiscal year of 1916-17 show that the imports amounted to \$845,000,000 for domestic consumption and exclusive of coin and bullion.<sup>2</sup> This represents an increase over the year ended 1916 amounting to \$337,400,000, representing over 66 per cent; it also represents an increase of \$175,000,000 over the imports of the year 1912-13, which as we have seen was the previous high-water mark of importation. Of course, as we shall see, some allowance must be made for an increase in prices.

<sup>1</sup> Trade and Commerce Report for 1916, Part I, p. 7.

<sup>2</sup> Weekly Bulletin, Department of Trade and Commerce, May 7, 1917, p. 1116.



We turn now to exports as affected by the war. We have already seen that while for the year 1912-13 imports had reached a maximum of \$686,000,000 the exports had risen to only \$377,000,000, including foreign produce but excluding coin and bullion. This was not much more than half the amount of the imports. The following year, however, 1913-14, the last before the war, while the imports fell by \$50,000,000, the exports increased by over \$75,000,000, to a total of \$455,000,000. During the first year of war, 1914-15, the exports increased only \$6,000,000 to \$461,000,000. Since, however, the imports fell off very greatly, there was a difference of only \$36,000,000 in favor of imports. For the second year of the war, 1915-16, the balance was heavily turned in favor of exports, the total having risen to \$779,000,000, an increase of not less than \$318,000,000, or 68 per cent.<sup>1</sup> From the preliminary returns for the year 1916-17, we find that the exports amounted to \$1,179,000,000, an increase of \$400,000,000, or over 51 per cent.<sup>2</sup> Great as is this increase it is not, however, as great in proportion as that for imports for this year, which amounted to 66 per cent.

When we turn to the items which make up the increased exports we find that the greatest increase during the war period has been in manufactures, which have risen from \$54,000,000 for the twelve months ending December, 1913, through \$69,000,000 for the year 1914, to \$191,000,000 for the year 1915, and \$440,000,000 for the year 1916. This, of course, represents chiefly war munitions. The next largest increase was in agricultural products, apart from animal products. These increased from \$127,000,000 in 1914 to \$364,000,000 in 1916. Next come animal products, increasing from \$68,000,000 in 1914 to \$117,000,000 in 1916. For the same calendar years, 1914-16, the products of the mine

<sup>1</sup> Trade and Commerce Report for 1916, Part I, p. 6.

<sup>2</sup> Weekly Bulletin, May 7, 1917, p. 1116.

increased from \$53,000,000 to \$81,000,000; the fisheries from \$18,000,000 to \$24,000,000, and the forest products from \$41,000,000 to \$55,000,000.<sup>1</sup>

A closer analysis of the exceptional increase in manufactures between 1914 and 1916, amounting to \$371,000,000 or a fivefold increase over 1914, reveals certain important facts bearing on the economic effects of the war. The chief articles making up this great increase were cartridges, including shells of every description. Before the war the export of these was wholly negligible. They began to be sent forward in large quantities only in December, 1915, but from that to the end of 1916 \$231,000,000 worth have been shipped. Before December, 1915, less than \$3,000,000 worth had been shipped during the first sixteen months of the war.<sup>2</sup> Other explosives accounted for an increase of \$28,000,000 during 1916, while before that less than \$2,000,000 had been exported during the war period.<sup>3</sup> For the first two months of 1917 an additional \$41,000,000 of cartridges and \$8,000,000 of other explosives had been shipped.<sup>4</sup> Cartridges and explosives accounted for over two-thirds of the increase in exports from the outbreak of the war. Another large increase was in gasoline launches, which before 1916 had not amounted to above \$10,000 worth for a year. During the year 1916, however, they were exported to the extent of \$7,250,000,<sup>5</sup> and in January, 1917, an additional \$7,900,000 were shipped.<sup>6</sup> Leather and leather goods accounted for a considerable increase in manufactures, but there was much variation in this line. The most pronounced increase was in harness and saddlery, of which only a few thousand dollars' worth had been exported before the war. In

<sup>1</sup> Trade and Commerce Report for 1916, Part I, p. xx.

<sup>2</sup> *Ibid.*, p. xxii.

<sup>3</sup> *Ibid.*

<sup>4</sup> Trade and Commerce Monthly Reports, Jan., 1917, p. 1357, and Feb., 1917, p. 1667.

<sup>5</sup> Trade and Commerce Report for 1916, Part I, p. xxii.

<sup>6</sup> Trade and Commerce Monthly Report, Jan., 1917, p. 1335.

November, 1914, however, there began quite an exceptional increase in these exports to Europe, chiefly to Great Britain, France, and Russia. The amount rapidly rose in a few months to over \$2,000,000 in March, 1915, and the export was well sustained until August of that year. Thereafter, however, it fell off rapidly, with a slight increase in the spring of 1916. Since then the export has shrunk to almost prewar conditions.<sup>1</sup>

The export of iron and steel manufactures has greatly increased. Before the war Canada exported from \$8,000,000 to \$10,000,000 in these lines, from a half to three-quarters of which consisted of agricultural implements. But while these fell off by more than a half during the second and third years of the war, the total export of iron and steel manufactures rose from \$11,000,000 in 1914 to \$14,000,000 in 1915, and \$54,000,000 in 1916.<sup>2</sup> These represent largely miscellaneous products sent to Great Britain.

Other manufactured articles in which there has been a considerable increase during the war are clothing, which reached a maximum of \$11,250,000 in the six months from December to May, 1915, but soon fell off again to less than one-third of that amount for the corresponding period in 1916, while in the last six months of 1916 the export amounted to only \$716,000. Drugs and chemicals have also steadily increased from about \$6,000,000 in 1915 to nearly \$9,000,000 in 1916.<sup>3</sup>

Of the agricultural products exported the greatest increases have occurred in wheat and wheat flour and oats. The exports of wheat rose rapidly in the autumn of 1914, yet the harvest of that year was not good and the amounts exported for the first nine months of the following year, 1915, were on the whole not more in value and less in quantity than the normal exports before the war. With the incoming of the exceptional harvest

<sup>1</sup> Trade and Commerce Report, 1916, Part I, p. xxiii.

<sup>2</sup> *Ibid.*, p. xxiv.

<sup>3</sup> *Ibid.*, p. xxii.

of 1915 there was naturally an enormous increase in the export of Canadian wheat to Europe. During the first nine months of that year the monthly export had not ranged beyond \$3,500,000 to \$7,500,000, except in June when it rose to \$10,000,000. In the autumn of 1915, however, the monthly exports suddenly increased, rising to nearly \$33,000,000 in October, followed by \$44,000,000 in November and \$39,000,000 in December. In April of the following year, 1916, extensive shipments were resumed, ranging from \$14,500,000 to \$34,500,000 per month. Owing to the autumn shipments the total for 1915 was increased to \$166,000,000, 70 per cent of which had been contributed in the last three months of the year. The total for 1916 amounted to \$239,000,000.<sup>1</sup> A rise in prices, as we shall see, accounted for some proportion in the increase but not as much as might be expected. The statistics as to quantities exported are available only to the end of the fiscal year in March, 1915-16. For the last four years quantities and values compare as follows:

	1912-1913	1913-1914	1914-1915	1915-1916
Bushels.....	93,100,000	120,410,000	71,900,000	157,700,000
Value.....	\$88,600,000	\$117,700,000	\$74,200,000	\$172,800,000 <sup>2</sup>

The export of flour, depending much more upon the capacity of the mills than upon the harvest, did not expand to any considerable extent until the fiscal year 1915-16. There was, however, a very considerable expansion in values at least during the latter part of 1915 and throughout 1916, the totals for these years being \$31,000,000 and \$46,000,000 respectively.<sup>3</sup> As in so many other cases the diminished consumption in the country due to the decrease in population tended to provide a corresponding increase in exports. Moreover, the feeding by Canada of its own soldiers overseas caused

<sup>1</sup> Trade and Commerce Report for 1916, Part I, p. xxii.

<sup>2</sup> *Ibid.*, p. 684.

<sup>3</sup> *Ibid.*, p. xxii.

the amounts supplied to appear in the exports of the country.

There was a rapid increase in the export of oats in the autumn of 1914 and which was resumed in the spring of 1915. The irregularity of shipping conditions caused considerable variation in the export of oats for individual months. Thus in May, August, September, November, and December of 1915 the shipments were over \$1,000,000 worth per month, whereas in some of the intermediate months the exports did not amount to more than one-half, one-third, or even one-sixth of that. The total exports for the year 1914-15 rose to \$10,000,000, but the following year when the shipments were somewhat more steady the total amounted to \$35,000,000.<sup>1</sup> The increase for this period was chiefly to France, the amount going to Great Britain being offset by the diminished amount going to the United States. The price of oats proportionately increased more than that of wheat as indicated in the following rates:

	1913-1914	1914-1915	1915-1916
Bushels.....	35,000,000	17,700,000	26,800,000
Value.....	\$13,300,000	\$8,900,000	\$14,600,000 <sup>2</sup>

There was no increase in the export of potatoes as due to the war, but rather the reverse. The great increase in the price of potatoes and certain other vegetables during 1916-17 was due to the very unfavorable weather of 1916, which greatly reduced the crops of roots and vegetables. There was, however, a considerable increase in the export of vegetables other than potatoes, both in the shape of canned goods and in other forms. The total value of the exports, however, up to the fiscal year ending March, 1916, did not exceed \$500,000.<sup>3</sup>

The effect of the war upon the export of hay resulted

<sup>1</sup> Trade and Commerce Report for 1916, Part I, p. xxii.

<sup>2</sup> *Ibid.*, p. 682.

<sup>3</sup> *Ibid.*, p. 730.

in a change of destination from the United States, to which most of it had previously gone, to England and France, especially the latter country. From the fiscal year ending in 1912 to that ending in 1915 there had been a rapid decline in the export of hay, from 784,000 tons to 131,000 tons. During 1915-16 the export rose to 255,000 tons, about half of which went to France. The value of hay was practically doubled between 1915 and 1916.<sup>1</sup>

The next important line of export stimulated by the war was that of animals and animal products. The results, however, were far from uniform and much influenced by other currents than those of the war demand directly. In other words, the war conditions tended at one period to increase exports and at another to diminish them. This was due, of course, chiefly to the conditions affecting transportation. In the matter of cattle of one year old and upwards, the export for the year before the war amounted to over \$7,500,000. For the first of the two years of the war the value of the exports rose to \$8,750,000 and the next year to \$12,000,000.<sup>2</sup> The increase, however, was entirely to the United States, inasmuch as the export to Britain, which was only about \$700,000 the year before the war, was practically paralyzed for lack of shipping facilities. As a matter of fact meat had to be shipped to Europe in a dressed or packed condition. Thus the export of beef, which had increased rapidly from 948,000 pounds in 1911-12 to 13,000,000 pounds in 1914, continued to increase for the first two years of the war from 18,750,000 pounds in 1915 to 47,500,000 in 1916.<sup>3</sup> The increase in value, however, was much more rapid, being about 50 per cent in the two years of the war as compared with the last year of peace. Not much beef had been shipped to Great Britain before

<sup>1</sup> Trade and Commerce Report, 1916, Part I, p. 754.

<sup>2</sup> *Ibid.*, p. 645.

<sup>3</sup> *Ibid.*, p. 721.

the outbreak of the war, owing to the great demand with high prices in Canada itself during the period of rapid expansion. The diminished consumption at home, however, and the high prices abroad greatly increased the exports to Britain. They rose from 190,000 pounds in 1913-14 to 1,330,000 pounds in 1915 and to 13,912,000 pounds in 1915-16. The United States shared with Great Britain in the increased exports of Canadian beef after the close of the expansion period in Canada.<sup>1</sup>

One of the striking consequences of the war has naturally been the great alteration in the volume and direction of Canadian exports and imports. In the matter of exports articles which scarcely figured in the external trade of the country rapidly rose within the last two years to leading places on the list. Thus cartridges and shells of various kinds, which in the three years before the war had not amounted to \$10,000 a year, in the first ten months of the fiscal year 1914-15 were exported to the value of \$188,000. The following year, 1915-16, for the same period they rose to \$37,800,000 and in 1916-17 to \$185,329,000.<sup>2</sup> The exports of other explosives before the war were equally insignificant. But in ten months of 1914-15 they amounted to \$202,000, the ten months of the next year to \$3,691,000 and for the corresponding ten months ending January, 1917, to \$26,760,000.<sup>3</sup> Steam launches, which even in the first two years of the war amounted to only \$6,000 and \$7,000 respectively, suddenly rose in ten months of 1916-17 to \$15,147,000. Carbide rose from \$625,000 in 1914-15 to \$2,789,000 in 1915-16 and \$3,743,000 in the ten months to January, 1917.<sup>4</sup> Sugar, which was exported for the first time in 1915, but only to the extent of \$31,000, suddenly rose in 1916 to \$3,393,000, sent to Great Britain.<sup>5</sup>

<sup>1</sup> Trade and Commerce Report, 1916, Part I, p. 721.

<sup>2</sup> Trade and Commerce Monthly Report, Jan., 1917, p. vii.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

Taking the exports of the following seven articles, cartridges and shells, copper and brass, gasolene launches, carbide, sugar, butter, and whiskey, the total export for the ten-month periods to January in each year amounted to \$8,519,000 in 1915, \$59,670,000 in 1916, and \$262,158,000 in 1917. These amounts represent the following percentages of the total Canadian exports for these periods: in 1915, 2.5 per cent; 1916, 10 per cent; 1917, 27.4 per cent.<sup>1</sup>

As to the limited field in which Canadian export trade operates, it is found that fifty of the leading articles of export amounted, in the ten-month periods already referred to, to the following percentages of the total exports of the country: January, 1915, 84 per cent; 1916, 88 per cent; 1917, 91 per cent; while thirteen of the leading articles amounted to the following percentages of the total exports: 1915, 51 per cent; 1916, 59 per cent; 1917, 71 per cent.<sup>2</sup>

As to the general direction of Canadian trade, it is found that for many years past a very large proportion of Canadian imports and exports have been connected with the two countries Great Britain and the United States. The place which Canada fills in United States trade is shown from the following facts. In the foreign trade of the United States, Great Britain is in all respects first. As regards the other countries, the imports into the United States from Canada came second to Britain in 1915, third in 1916, Cuba coming second, while Canada was second again in 1917. As regards exports from the United States to all countries, Canada came second to Britain in 1915, third in 1916, and third in 1917, France coming second in those two years.<sup>3</sup>

The percentages of Canadian trade with the two countries of Great Britain and the United States taken

<sup>1</sup> Compiled from various Trade and Commerce Returns.

<sup>2</sup> *Ibid.*

<sup>3</sup> From Tables of United States Returns given in Canadian Trade and Commerce Monthly Report for Jan., 1917, p. 1122.



together and separately are set forth in the accompanying table. These percentages cover the ten-month periods ending in January in each year.

	1915	1916	1917
Percentages of Canadian exports to			
Great Britain and the United States.....	88½%	88%	89%
Great Britain .....	44½	60	64¾
The United States.....	44	28	24¼
Percentages of Canadian imports from			
Great Britain and the United States.....	84¾	87½	91
Great Britain .....	20	15½	13
The United States.....	64¾	72	73 <sup>1</sup>

Taking the period before the war we have the following corresponding percentages for the full fiscal years ending with the dates indicated:

	1912	1913	1914
Percentages of Canadian exports to			
Great Britain and the United States.....	93%	87%	87¾%
Great Britain .....	51	47¾	50
The United States.....	42	39¼	37¾
Percentages of Canadian imports from			
Great Britain and the United States.....	85	85	85
Great Britain .....	22	20	21
The United States.....	63	65	64 <sup>2</sup>

It will be seen from these figures that the trade of Canada not only under normal conditions but even during the war period is so overwhelmingly with the two countries of Great Britain and the United States that its trade with the rest of the world is of very secondary interest to the country as a whole. Consequently, the almost total cessation of trade with certain countries, particularly those of the enemy and those affected by the war zones, makes but little difference to the general economic condition of Canada, however much it may affect a few special interests or individuals. It may be observed that, taken as a whole, the proportion of Canadian exports going to Great Britain and the United States together, has varied very slightly in passing from the prewar to the war period. The proportion of the joint trade has slightly increased since the outbreak of the war, but not so greatly as might have been

<sup>1</sup> Compiled from Returns in Monthly Report for Jan., 1917.

<sup>2</sup> Compiled from Returns in Trade and Commerce Report, 1916, Part I.

expected when we consider the very considerable alteration in the demand for Canadian raw materials, and especially in the character of Canadian manufactured exports. When, however, we come to survey the proportions in which this fairly uniform joint trade is made up from the two separate countries, we find that while the individual proportions are fairly uniform for the three years before the war, there is a very great change in the three years during the war. Canadian exports to Great Britain are normally greater than those to the United States, nearly in the proportion of five to four. During the first year of the war, however, they were equally divided between the two countries. Then the war demands from Britain greatly increased, but this was almost exactly offset by a corresponding decrease in the exports to the United States. Thus, while the joint proportion remained substantially the same, the practical equality in the case of the two countries which prevailed during the first year of the war, became as two to one in favor of Britain in the second year, and approximately three to one in the third year of the war.

On the other hand, the imports from Great Britain, which were practically one-third those from the United States in the prewar period, became steadily less during the war period, being somewhat less than one-third in the first year, falling to practically one-fifth during the second year, and exactly one-sixth during the third year. In the case of imports, not only was there a marked transference of the source of supply from Great Britain to the United States, but the United States absorbed also most of the reduced trade with several other countries. This accounts for the fact that the total import trade with Great Britain and the United States rose from  $84\frac{3}{4}$  per cent in 1915 through  $87\frac{1}{2}$  per cent in 1916 to 91 per cent in 1917. Of this trade, the United States obtained no less than 78 per cent. The normal percentage of imports from the United States during the

prewar period was practically 64. The very great increase of imports from the United States during the war has been due to several combined conditions. First, the almost complete cessation of supplies from foreign countries, particularly those of the enemy and those in the zone of war. The chief cause of the transference of trade from Great Britain to the United States has been partly that many articles hitherto exported were urgently needed in Britain; chiefly because of the increasing cost of ocean freights and the diminishing ocean tonnage. Lastly, the supplies of materials and equipment for the manufacture of munitions in Canada were most readily obtained from the United States. Thus if we take some typical imports for the ten-month periods ending in January of each year we find such results as these for the war period:

Imports for 10 Months	1915	1916	1917
Metals and minerals.....	\$71,500,000	\$80,700,000	\$133,100,000
Articles for the army and navy.....	600,000	27,000,000	115,900,000
Chemicals, drugs, dyes, etc.....	11,100,000	13,100,000	23,200,000
Cotton, and manufacture of.....	21,100,000	24,400,000	41,300,000
Provisions.....	4,700,000	7,000,000	19,200,000 <sup>1</sup>

These great increases in the total amounts were almost entirely from the United States, thus materially increasing the proportion obtained from that country. Thus \$114,400,000 of the \$115,900,000 of the articles for the army and navy came from the United States. In the case of chemicals, drugs and dyes, the proportion from the United States rose from sixty-two in 1915 to seventy-six in 1916 and to seventy-seven in 1917. In the case of cottons in 1915 the percentage obtained from the United States was forty-seven, while in 1916 it rose to sixty-two, and in the following year to sixty-three. In the case of provisions, the percentage from the United States rose from sixty-three in 1915 to ninety-three in 1916 and to ninety-seven in 1917. Among

<sup>1</sup> Trade and Commerce Monthly Report for Jan., 1917, p. vi.

other articles in which there was considerable increase in imports during the war, the greater part of which came from the United States, may be mentioned beans, corn, automobiles, sugar, silks, furs, woolens, fancy articles, fish, hides and skins, leather and manufactures, glass and manufactures, paints and colors, and cocoa.<sup>1</sup>

Of the trade with other countries, which has been greatly altered, that with the enemy powers, it goes without saying, has been almost completely suspended. This trade before the outbreak of the war was chiefly with Germany; the imports from that country amounting in the last two years before the war to about \$14,500,000 annually, while the imports from Austria ran from \$1,600,000 to \$2,600,000 in the same years. There was also about \$500,000 of import trade from Turkey. The trade with the other Balkan allies of Germany was quite insignificant. The exports to Germany ran from \$3,000,000 to \$4,000,000 a year and to Austria and Turkey never amounted to \$500,000. The total trade with the enemy for the three years before the war was as follows:

	1912	1913	1914
<i>Total imports from enemy countries..</i>	\$13,151,000	\$16,682,000	\$17,803,000
<i>Total exports of Canadian products to enemy countries .....</i>	3,659,000	3,228,000	4,881,000 <sup>2</sup>

It will be recognized that the total cessation of this trade was not of much consequence to Canada, especially as the goods involved could be, as a rule, readily obtained elsewhere, and the market for Canadian exports, except as to agricultural implements, has been greatly extended elsewhere. The chief lines of import from the enemy countries were drugs and dyes from Germany, running from two-thirds to a million dollars, also earthenware, china, machinery, iron and steel goods, settlers' effects, cotton manufactures, and woolen goods. In the matter of the imports of textiles generally,

<sup>1</sup> Compiled from various sections of Trade and Commerce Report, 1916.

<sup>2</sup> Trade and Commerce Report, 1916, Part I, pp. 40-43.

Germany was only sixth on the list, coming after France, Switzerland, and India. Other articles in much smaller quantities were sugar, graniteware, zinc, spelter, paints and varnishes, and perfumery. Austria sent much the same articles, though in much smaller quantities, with the exception of silks. The Canadian exports to Germany and Austria were chiefly wheat, flour, fish, some meats, and agricultural implements, the latter furnishing about one-fourth of the total export.<sup>1</sup> As already indicated, no great disturbance in Canadian trade resulted from the breaking of trade relations with the enemy.

In the case of the other countries we may note, first, the changes in our trade relations with the chief European Allies, France, Russia, Italy, and Belgium. In the case of France the imports, which amounted to about \$14,500,000 before the war, fell to \$8,250,000 in 1914-15, and to \$5,700,000 in the first full year of the war,<sup>2</sup> but have revived to the amount of \$5,981,000 for the eleven months to February, 1917.<sup>3</sup> On the other hand, exports to France, which had been running from \$2,100,000 to \$3,800,000 before the war, suddenly expanded to \$14,500,000 during the year when the war broke out, rising to \$36,000,000 for the first full year of the war, 1915-16,<sup>4</sup> and to \$57,000,000 for the eleven months to February, 1917.<sup>5</sup> The special exports to France consist, in the order of their importance, of oats, flour, wheat, hay, harness and saddlery, beef and fish.<sup>6</sup> Imports from Russia had not amounted to the full million even in the best year before the war and fell below half a million in 1913-14 and as low as \$103,000 in 1915 and \$124,000 in 1916. On the other hand, the exports to Russia, which before the war consisted almost entirely

<sup>1</sup> Compiled from various sections of the Trade and Commerce Report, 1916.

<sup>2</sup> Trade and Commerce Report, 1916, Part I, pp. 40-41.

<sup>3</sup> Trade and Commerce Monthly Report, Feb., 1917, p. 1721.

<sup>4</sup> Trade and Commerce Report, 1916, Part I, pp. 40-41.

<sup>5</sup> Trade and Commerce Monthly Report, Feb., 1917, p. 1721.

<sup>6</sup> Trade and Commerce Report, 1916. Various sections.

of agricultural implements, expanded considerably after the outbreak of the war. Large quantities of railroad equipment, as also considerable harness and saddlery during the first year of the war were sent to Russia. Thus the exports which before the war had not risen above \$2,100,000 expanded to \$6,000,000 in 1915 and to \$7,000,000 in 1916.<sup>1</sup>

Imports from Italy had risen to \$2,100,000 in 1913-14, but fell off the following year to \$1,500,000 and to \$966,000 for 1915-16. They revived, however, to over \$1,000,000 during the eleven months to February, 1917. On the other hand, the exports to Italy, which had not exceeded \$655,000 before the war, increased to \$4,800,000 in 1915-16,<sup>2</sup> this being part of the wheat commandeered by the Canadian government in the autumn of 1915. Belgian trade has practically vanished since the outbreak of the war except for goods sent on charitable account, especially in the first year of the war.

<sup>1</sup> Trade and Commerce Report, 1916. Various sections.

<sup>2</sup> *Ibid.*, Part I, pp. 42-43.

**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.*



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# 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 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.....	3,551,703
1875.....	2,075,971	1914.....	3,596,541

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

Provinces	1907			1912			
	Area in square kilometers	Population	Population per square kilometer	Population	Population per square kilometer	Total increase	Increase per year per 1000 inhabitants
Tacna .....	23,958	28,746	1.2	44,291	1.8	15,543	70.2
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	128,486	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
Biobío.....	13,587	97,968	7.2	102,170	7.5	4,202	8.2
Malleco .....	7,701	109,775	14.2	115,177	14.9	5,402	9.4
Cautín.....	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 [ $\text{Na NO}_3$ ]) is found in the district from the Camerones River in the North to Caldera in the South.<sup>1</sup> 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.<sup>2</sup>

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

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

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

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 estimate<sup>1</sup> 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 .....	256,695	325,562
Iron Ore .....	105,750	476,292
Lime .....	69,040	<sup>2</sup> 304,127
Lead .....	2,370	2,063
Zinc .....	405	65
Total .....	\$146,508,255	\$132,219,921

<sup>1</sup> See Wilson, *op. cit.*, p. 110.

<sup>2</sup> 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.<sup>1</sup> 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-

<sup>1</sup> Wilson, *op. cit.*, p. 114.

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.<sup>1</sup> 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

<sup>1</sup> 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:<sup>1</sup>

Industry	Number of Establishments	Capital	Value of Output
Flour mills .....	179	\$12,193,434	\$14,536,219
Breweries .....	63	5,534,031	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
<b>Total .....</b>	<b>1,390</b>	<b>\$54,422,771</b>	<b>\$55,211,525</b>

<sup>1</sup> 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.<sup>1</sup> 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.

<sup>1</sup> 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.<sup>1</sup>

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

<sup>1</sup> 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:<sup>1</sup>

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	Exportation August to Dec., incl. (101.4 lbs.)
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

<sup>1</sup> 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:<sup>1</sup>

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.

<sup>1</sup> 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 months<sup>1</sup> 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:

<sup>1</sup> 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	89
1886	4½	½	Chilean Government 4½ per cent loans of 1886..	6,010,000	4,206,700	98½
1887	4½	½	Chilean Government 4½ per cent loan of 1887..	1,160,200	817,500	97½
1889	4½	½	Chilean Government 4½ per cent gold loan of 1889 .....	1,546,400	1,223,640	101¾
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	98½
1896	5	½	Chilean Government 4½ per cent loans of 1896..	4,000,000	3,436,700	95½
1896	5½	2	Penueles loan .....	200,000	74,400	.....
1900	4½	½	Chilean Government 4½ per cent Coquimbo Rail- way 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 (Copiapo 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 <sup>1</sup> .....	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

<sup>1</sup> 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.....14½	1906.....14¾
1900.....16¼	1907.....12¾
1901.....15⅞	1908.....9⅝
1902.....15¾ <sup>16</sup>	1909.....10 <sup>25</sup> / <sub>32</sub>
1903.....16⅝	1910.....10 <sup>25</sup> / <sub>32</sub>
1904.....16¾	1911.....10⅝
1905.....15⅝	1912.....10⅞

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

#### VALUE OF CHILEAN PAPER PESO IN ENGLISH PENCE

	1913	1914
	d.	d.
January.....	10 <sup>3</sup> / <sub>32</sub>	8 <sup>31</sup> / <sub>32</sub>
February.....	10 <sup>7</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>32</sub>
March.....	10 <sup>5</sup> / <sub>32</sub>	9 <sup>5</sup> / <sub>8</sub>
April.....	10 <sup>1</sup> / <sub>32</sub>	9 <sup>23</sup> / <sub>32</sub>
May.....	9 <sup>31</sup> / <sub>32</sub>	9 <sup>9</sup> / <sub>16</sub>
June.....	9 <sup>25</sup> / <sub>32</sub>	9 <sup>11</sup> / <sub>16</sub>
July.....	9 <sup>9</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>
August.....	9 <sup>11</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
September.....	9 <sup>9</sup> / <sub>16</sub>	8 <sup>21</sup> / <sub>32</sub>
October.....	9 <sup>13</sup> / <sub>32</sub>	7 <sup>15</sup> / <sub>16</sub>
November.....	9 <sup>9</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>16</sub>
December.....	9 <sup>13</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>16</sub>
Average for year.....	9 <sup>3</sup> / <sub>4</sub>	8 <sup>31</sup> / <sub>32</sub>



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 25,820,000 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	6,759,589.00	76,831,730.00	5,997,985
Discounts, loans and advances .....	453,318,217.00	25,494,440.00	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	23,060,408	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 EARLY EFFECTS OF

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.	( \$1.89 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:

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### DISTRIBUTION OF EXPORTS, 1913-1914

	1913	1914
Great Britain .....	\$55,548,341	\$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 .....	4,810,475	5,380,220
Australia .....	3,343,831	6,270,379 <sup>1</sup>

<sup>1</sup> 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:<sup>1</sup>

## 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 "

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

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## 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.<sup>1</sup>

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-

<sup>1</sup> 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.<sup>1</sup>

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

<sup>1</sup> 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 <sup>1</sup>		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
Valparaiso.....	4,142 (in the city of Valparaiso).
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.

<sup>1</sup> 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 cents<sup>1</sup> per day, together with a ration

<sup>1</sup> 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 <sup>1</sup> WITHOUT RATION		PER DIEM WAGE <sup>1</sup> 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
Talca .....	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

<sup>1</sup> 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.



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## APPENDICES





## APPENDIX A

### IMPORTS OF UNITED STATES FROM CHILE<sup>1</sup>

*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	13,028	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

<sup>1</sup> "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 <sup>1</sup>

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

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

## APPENDIX A

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	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:				
Dynamos, or generators..			15,777	19,687
Insulated wire and cables				45,952
Interior wiring supplies, etc. (including fixtures)				26,175
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

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	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

## APPENDIX A

	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
Metalworking 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
Woodworking 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

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	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

## APPENDIX A

	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 natural oils, without regard 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, engravings, etchings, etc. ....	.....	.....	269,879	109,509
Carbon paper .....	.....	.....	1,563	8,108



## APPENDIX A

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	QUANTITIES		VALUES	
	1913	1914	1913	1914
Paper, and manufactures of:				
<i>(Cont.)</i>				
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	40,665
Wrapping paper (lbs.) ..	20,681	27,545	802	1,071
Writing paper and envelopes .....			12,228	6,968
All other .....			19,778	18,851
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 records, 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 including instruments) ..			16,411	23,351
Tin, manufactures of .....			7,824	5,992
Tobacco, and manufactures of .....			5,647	7,045
Toys .....			7,474	4,094
Trunks, valises, and traveling 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 potatoes .....	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 timber (M. ft.) .....	10	500	100	5,000

## APPENDIX A

	QUANTITIES		VALUES	
	1913	1914	1913	1914
Wood and manufactures of:				
(Cont.)				
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, 1913-1914 <sup>1</sup>

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
<b>TOTAL FOR YEAR..</b>	<b>\$29,553,823</b>	<b>\$24,238,713</b>	<b>\$16,616,912</b>	<b>\$13,627,618</b>

### IMPORTS AND EXPORTS, 1913 <sup>1</sup>

	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
<b>GRAND TOTAL .....</b>	<b>\$142,801,576</b>	<b>\$120,274,001</b>

### THREE PRINCIPAL IMPORTING COUNTRIES <sup>2</sup>

	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 .....	.....	.....	.....	.....

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

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

CHILEAN COMMERCE (1913) <sup>1</sup>

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	559,009
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	5,869,542
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
<b>TOTAL</b> .....	<b>5,722</b>	<b>\$94,257,466</b>

<sup>1</sup> U. S. Commercial Reports, January 2, 1915.

## APPENDIX B

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## CHILE

STATISTICS OF EXPORTS<sup>1</sup>

Countries	Year	Animal Products	Vegetable Products	Mineral Products	Various Products	Total
United Kingdom.	1910	\$5,163,334	\$3,950,165	\$38,714,734	\$6,792	\$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
	1914	5,054,807	3,118,996	31,845,984	21,520	40,041,307
Germany .....	1910	1,783,225	807,318	20,479,097	73,267	23,142,907
	1911	1,610,946	852,774	23,698,525	37,525	26,199,770
	1912	1,861,578	1,143,821	25,031,886	23,410	28,060,695
	1913	1,651,860	944,357	28,147,807	28,718	30,772,742
	1914	1,636,874	553,293	15,879,252	9,567	18,078,986
United States....	1910	287,755	124,628	24,264,209	4,196	24,680,878
	1911	96,201	217,671	10,237,176	884	10,551,932
	1912	86,433	1,601	24,425,951	580	24,514,565
	1913	20,097	185,668	30,207,534	87	30,413,386
	1914	158,361	210,213	31,057,973	7,689	31,434,241
France .....	1910	1,171,868	59,160	3,947,551	58,707	5,237,286
	1911	1,157,620	18,744	4,650,603	38,206	5,865,178
	1912	1,385,147	29,413	6,223,415	30,595	7,668,570
	1913	1,546,571	26,735	7,251,877	22,702	8,847,885
	1914	670,441	16,828	3,548,944	8,915	4,245,128
Belgium .....	1910	141,317	59,259	3,236,880	1,031	3,438,487
	1911	149,224	158,329	3,166,268	5,208	3,479,029
	1912	57,233	229,648	4,322,816	1,263	4,610,960
	1913	250,522	138,017	5,286,020	310	5,674,869
	1914	42,533	45,062	3,352,460	4,453	3,444,553
Netherlands ....	1910	12,814	46,742	2,391,287	.....	2,450,843
	1911	50,966	52,685	3,338,118	.....	3,441,769
	1912	34,438	119,369	4,081,639	102	4,235,548
	1913	55,652	14,147	4,400,303	.....	4,470,102
	1914	32,898	18,092	3,239,967	38	3,290,995
Spain .....	1910	.....	1,406	1,987,453	1,398	1,990,262
	1911	220	29,234	1,981,025	1,171	2,011,650
	1912	.....	.....	1,834,419	.....	1,834,419
	1913	.....	.....	987,174	.....	987,174
	1914	.....	2,190	.....	1,186	3,376
Uruguay .....	1910	1,993	209,577	.....	14,339	225,909
	1911	613	431,181	787,661	2,621	1,222,076
	1912	716	228,945	2,483,624	4,395	2,717,680
	1913	33,773	302,294	86,172	1,797	424,036
	1914	18	231,922	.....	2,438	234,378
Argentina .....	1910	72,935	849,401	10,291	116,147	1,048,774
	1911	105,451	1,003,274	13,471	76,466	1,198,662
	1912	34,384	1,020,441	17,388	56,348	1,128,561
	1913	25,488	855,903	94,832	58,658	1,034,880
	1914	292,134	1,132,627	7,064	79,684	1,511,508
Japan .....	1910	.....	.....	730,215	26	730,241
	1911	120	109	1,018,296	1,132	1,019,657
	1912	.....	22	957,114	109	957,245
	1913	1,204	.....	1,332,277	.....	1,333,481
	1914	.....	.....	818,961	4,537	823,498
Bolivia .....	1910	67,447	859,350	1,347	357,870	1,286,014
	1911	41,804	565,212	2,591	56,934	666,541
	1912	64,519	489,103	2,259	30,421	586,302
	1913	60,540	445,103	11,200	30,433	547,276
	1914	13,516	250,938	9,666	15,595	289,715
Other Countries..	1910	120,956	1,107,517	2,471,177	16,635	3,716,285
	1911	89,955	414,584	2,244,462	13,176	2,762,177
	1912	55,506	1,237,806	4,923,996	8,151	6,225,459
	1913	82,621	1,098,799	1,561,759	4,223	2,747,402
	1914	64,386	502,645	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	7,668,669	5,381,686	107,483,257	243,111	120,676,723
	1912	7,580,962	7,240,054	122,664,742	157,395	137,643,153
	1913	9,207,102	7,080,585	126,366,417	147,172	.....
	1914	7,966,018	6,082,806	93,208,408	170,080	.....

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













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