

INTERNATIONAL UNEMPLOYMENT

A STUDY OF FLUCTUATIONS IN
EMPLOYMENT AND UNEMPLOYMENT
IN SEVERAL COUNTRIES 1910-1930

CONTRIBUTED TO THE WORLD SOCIAL ECON-
OMIC CONGRESS, AMSTERDAM, AUGUST 1931
PUBLISHED BY THE INTERNATIONAL INDUSTRIAL
RELATIONS INSTITUTE - M. L. FLEDDÉBUS, EDITOR

OBTAINABLE FROM THE INTERNATIONAL INDUSTRIAL
RELATIONS INSTITUTE (I. R. I.), THE HAGUE, HOLLAND,
AND FROM ROOM 600, 130 EAST 22ND STREET, NEW YORK

PREFACE

The volume herewith presented may be considered as the fore-runner of, or companion publication to, a further volume shortly to appear under the title "World Social Economic Planning".

The two volumes together contain the rich material brought together both preliminary to and at the World Social Economic Congress which took place in August 1931 at Amsterdam under the auspices of the International Industrial Relations Association. *

The Association defines industrial relations as the purposes, procedures and attitudes of individuals and groups whose functioning together constitutes industry and trade. Maladjustment between productive capacity and buying power as a cause, and unemployment and insecure standards of living as results, are therefore within the immediate scope of interest of the I.R.I., for they are problems of industrial relations and condition human welfare.

The volume on World Social Economic Planning will contain, in addition to important contributions on the subject, a chapter on "The Present Paradox - Unemployment in the midst of Economic Progress" by Dr. Max Lazard, which constitutes an analysis both of the reports brought together in this volume, and of the causes underlying the existing paradox of poverty in a world of plenty, of unemployment in a world of greatly enhanced productive capacity.

The Hague, March 1932.

* Reconstituted into the "International Industrial Relations Institute" on March 31st 1932.

VORWORT

Der vorliegende Band kann als Vorläufer oder Gegenstück zu einem weiteren Band bezeichnet werden, der in der nächsten Zeit unter dem Titel „World Social Economic Planning“ (Sozialökonomische Weltplanung) erscheinen wird.

Die beiden Bände enthalten das reichhaltige Material, das an dem Weltkongress über sozialökonomische Planung zusammengetragen wurde, der im August 1931 in Amsterdam unter den Auspizien der International Industrial Relations Association* stattgefunden hatte.

Die Industrial Relations Association versteht unter „industrial relations“ (Beziehungen im Wirtschaftsleben) die Zwecke, Handlungsweisen und Haltungen von Einzelpersonen und Gruppen, deren Zusammenwirken Industrie und Handel ausmacht. Mangel an Anpassung zwischen Produktionskapazität und Kaufkraft als Ursache, Arbeitslosigkeit und Unsicherheit des Lebensstandards als Ergebnisse, liegen deshalb im unmittelbaren Gesichtskreis der I. R. I., denn es sind Probleme von „industrial relations“, die die menschliche Wohlfahrt bedingen.

Ausser den bedeutenden Beiträgen über Sozialökonomische Planung enthält dieser Band ein Kapitel von Dr. Max Lazard, das die gegenwärtige Paradoxie: Arbeitslosigkeit inmitten wirtschaftlichen Fortschrittes, behandelt. Dr. Lazard analysiert in diesem Kapitel die Berichte, die in dem vorliegenden Bande gesammelt sind, und die Ursachen der gegenwärtigen Paradoxie: Armut in einer Welt der Fülle, Arbeitslosigkeit in einer Welt erweiterter Produktionsmöglichkeiten.

Haag, März 1932.

* Am 31. März 1932 neu errichtet als „International Industrial Relations Institute“.

PRÉFACE

Cet ouvrage sera suivi sous peu d'un second qui paraîtra sous le titre de „World Social Economic Planning” (L'Aménagement universel économique et social), et qui pourra être considéré comme le complément de celui-ci.

Les deux volumes contiennent l'un et l'autre une abondante moisson de documentations qui ont été rassemblées avant et pendant le Congrès Universel d'Aménagement économique et social, tenu en août 1931, à Amsterdam, sous les auspices de l'Association Internationale des Relations Industrielles. *

L'Association définit les relations industrielles comme résultant des intentions, des méthodes et des attitudes adoptées par les individus et les groupes dont la coopération donne naissance à l'industrie et au commerce. Le déséquilibre entre la capacité de production et le pouvoir d'achat, dans la mesure où il engendre le chômage et la précarité du niveau de vie, rentre par conséquent dans la compétence de l'I. R. I. Ce sont des problèmes intéressant des relations industrielles, et dont la solution importe au mieux-être humain.

On trouvera dans ce tome second, en outre des contributions importantes sur le sujet - L'Aménagement universel économique et social - un chapitre du Dr. Max Lazard sur „Le Paradoxe de l'heure présente - le Chômage en plein Progrès économique”. Le Dr. Max Lazard fait une analyse très serrée aussi bien sur les rapports présentés ici que sur les causes qui forment la base du paradoxe, misère au sein de l'abondance, chômage dans un monde de capacité productive étendue.

La Haye, Mars 1932.

* Réorganisée le 31 mars 1932 en „Institut International des Relations Industrielles.

CONTENTS

| | Page |
|--|------|
| INTRODUCTION AND SUMMARY by Mary van Kleeck, Director Dept. of Industrial Studies, Russell Sage Founda- tion, Vice-President I. R. I., New York, U. S. A. | 7 |
| FLUCTUATIONS IN UNEMPLOYMENT IN AUSTRALIA by Dr. F. C. Benham, London School of Economics and Political Science, formerly Lecturer in the University of Sydney, Australia | 25 |
| EMPLOYMENT AND INCOME OF LABOR IN CANADA by W. A. Berridge Ph.D., Economist of the Metropolitan Life Insurance Company, New York, U. S. A. | 45 |
| INDUSTRY AND LABOUR IN CHINA by L. K. Tao and S. H. Lin, Institute of Social Research, Peiping, China | 71 |
| ARBEITSLOSIGKEIT IN DEUTSCHLAND von Prof. Dr. Robert Wilbrandt und Dr. Gerhard Isenberg, Technische Hochschule, Dresden | 137 |
| FLUCTUATIONS IN UNEMPLOYMENT IN FRANCE by Dr. F. C. Benham | 193 |
| FLUCTUATIONS IN UNEMPLOYMENT IN GREAT BRITAIN by Dr. F. C. Benham | 229 |
| EMPLOYMENT AND INCOME OF LABOR IN THE UNITED STATES by W. A. Berridge, Ph.D. | 279 |
| EMPLOYMENT AND UNEMPLOYMENT IN PRE-WAR AND SOVIET RUSSIA by Susan M. Kingsbury, Ph.D. and Mildred Fairchild, Ph.D., Bryn Mawr College, Bryn Mawr, U.S.A. | 327 |

CONTENTS (cont'd)

ADDENDUM:

| | Page |
|--|------|
| INTRODUCTION ET RÉSUMÉ par Mary van Kleeck . . . | 447 |
| EINFÜHRUNG UND ZUSAMMENFASSUNG von Mary van Kleeck. | 469 |
| PROGRAMME OF 1931 WORLD SOCIAL ECONOMIC CONGRESS | 489 |

INTRODUCTION AND SUMMARY BY MARY VAN KLEECK, DIRECTOR INDUSTRIAL STUDIES, RUSSELL SAGE FOUNDATION, VICE-PRESIDENT I. R. I., NEW YORK, U. S. A.

INTRODUCTION.

The purpose of the analyses of fluctuations in employment, which were undertaken in preparation for the 1931 Social Economic Congress organized under the auspices of the International Industrial Relations Association*, was to give a picture of the recurrence of unemployment in different parts of the world during the two decades which have ended in the present worldwide industrial depression. In two senses these studies are introductory.

(1) They were designed to give a starting point for discussion of the international aspects of unemployment at the Congress.

(2) They were planned also in the hope that they might stimulate further investigations including more countries and analyzing in greater detail the data available in the countries here included.

Unemployment is a symptom rather than a definite entity recurring in unchanged form. Quite the contrary is true; each period of unemployment in the different countries of the world has presented different aspects, and the economic maladjustments which these changing aspects reflect vary in their relative importance and, combined, make up a different set of circumstances in each recurring depression.

In common with other elements in what has come to be known as the business cycle, fluctuation in employment is becoming a subject of rapidly increasing interest to economists, notably in the United States, Germany and Great Britain. The elusive, shifting character of the circumstances of these changes in economic life is a lure to further scientific work, as it is also a discouragement to those who have hoped that control of the cycle by business and government would be feasible.

* Reconstituted into the "International Industrial Relations Institute" on March 31st. 1932.

INTRODUCTION AND SUMMARY

This is not the place to attempt even a cursory reference to the result of these studies of economic changes, with all their fascinating problems of the technique of forecasting and of the search for causes for which statistical data are a prerequisite. Suffice it to say in its bearing upon the international Congress which takes unemployment as its starting point that economists investigating the business cycle have reached the point where the importance of employment and unemployment as a subject of analysis is increasingly recognized; and moreover it is also being suggested that no longer should this subject be studied in the different countries separately, but comparable analyses must be made which will indicate the extent to which international trade relations affect national fluctuations.

For example, Professor Ernst Wagemann of Berlin, President of the Statistical Office of the German Reich and Director of the German Institute for Business Cycle Research,¹ in his recent book, *Konjunkturlehre* - translated in an English edition under the title, *Economic Rhythm* - has said:

The fluctuations in the employment level, and in the loss of income which they cause, are relatively slight in relation to the total values created by the whole economic process; but the actual unemployment figures, running at times into hundreds of thousands and even into millions, give rise to an extraordinary amount of suffering and hardship. Consequently, the elimination of these fluctuations would seem to be paramount problems within the entire field of economic policy.²

Recognition of the importance of unemployment as an aspect of the study of business cycles was given by President Hoover when, as Secretary of Commerce in the United States, in 1921 he appointed the Committee on Unemployment and Business Cycles, under the chairmanship of Mr. Owen D. Young, Chair-

¹ Dr. Wagemann is also Professor in the University of Berlin, Honorary Fellow of the Royal Statistical Society and Honorary Member of the International Institute of Statistics.

² Wagemann, Ernst, *Economic Rhythm*, McGraw-Hill Book Publishing Company, Inc., New York, 1930. Chapter XXII, *Stabilization of Business and Elimination of Its Cycles*, p. 230.

INTRODUCTION AND SUMMARY

man of the Board of the General Electric Company. Commenting upon the Committee's report, Mr. Hoover wrote in 1923:

The whole problem belongs to a vast category of issues which we must as a nation confront in the elimination of waste if we are to maintain and increase our high standards of living. No waste is greater than unemployment, no suffering is keener or more fraught with despair than that fraught with inability to get jobs by those who wish to work.³

Fluctuation in employment is not only a subject important in itself, but it is also a measure of the general economic situation. In his book previously quoted, Professor Wagemann says:

We select the employment level as the most important subject of business cycle investigation, for the particular reason that we consider it to constitute the best general index of the course of the national business cycle, as far as present-day conditions in Germany are concerned.⁴

Studies of unemployment have hitherto been primarily national in scope, but recognition is being given by economists to the necessity for international studies. For instance, one of the pioneers in research on business cycles, Dr. Wesley C. Mitchell, of Columbia University, in his latest book, *Business Cycles - The Problem and Its Setting*, says:

The increasing conformity to an international pattern which the annals (of business cycles) reveal in recent years shows that the international influences are gaining in relative importance.⁵

The studies here mentioned and others which have come to our attention have not been primarily concerned with employment and unemployment, nor have they presented data for different countries or attempted international comparisons. In seeking for the information needed for the triennial Congress,

³ United States Department of Commerce, *Business Cycles and Unemployment. Report and recommendations of a committee of the President's Conference on Unemployment* (Owen D. Young, Chairman, Clarence M. Woolley, Joseph H. Defrees, Matthew Woll, Mary van Kleeck, Edward Eyre Hunt, Secretary), with foreword by Herbert Hoover, Washington, Government Printing Office, 1923, p. vi.

⁴ *Op. cit.*, Chapter XXI, *Employment as an Index of the Cyclical Movement*, p. 222. This statement about Germany would be confirmed by students of the business cycle as true of other countries.

⁵ Mitchell, Wesley C., *Business Cycles - The Problem and Its Setting*. National Bureau of Economic Research, New York, 1930, p. 450.

INTRODUCTION AND SUMMARY

officers of the International Industrial Relations Association conferred with members of the staff in the International Labour Organisation and in the Economic Section of the League of Nations. This was in September, 1930. The Economic Section of the League has not considered employment and labor conditions to be within its scope, as these are the subjects of activity belonging to the International Labour Organisation. But of course the League's work on general economic questions, such as the gold supply and a study of world economic depression authorized by the Assembly of the League at its 1930 session, have a direct bearing upon the conditions of economic life out of which unemployment arises. However, the statistics which we sought on fluctuations in employment were not available there.

The International Labour Organisation has a section in which studies of unemployment and migration are in progress. It broke new ground in a report in 1929 on Unemployment - Some International Aspects, 1920-1928.⁶ This report, stressed, first, the influence of currency fluctuations; second, unemployment in two industries, coal-mining and textiles; and third, unemployment and international migration. The office had at the same time in progress a report on public works in relation to unemployment and a comparative study of public employment exchanges, following a similar study of unemployment insurance.

In the statistical section of the International Labour Organisation no studies were in progress which were directly in line with the I.R.I. program, though the International Labour Review was publishing figures showing changes in employment and in wages in different countries from 1920 annually. Moreover, certain special studies were of interest to the Con-

⁶ International Labour Office, *Unemployment - Some International Aspects, 1920-1928*. Report presented to the twelfth session of the International Labour Conference, May-June, 1929, in *Studies and Reports, Series C (Employment and Unemployment)*, No. 13.

INTRODUCTION AND SUMMARY

gress, such as a recent report on coal-mining, which disclosed differences in wages and standards of living of miners in different countries; and a report not yet issued at this writing, on standards of living in cities in which there are Ford factories, financed by the Twentieth Century Fund (United States) for the purpose of supplying data for Mr. Ford's announced policy of paying wages in European countries to permit a standard of living equal to that of Ford workmen in Detroit. Except for these investigations, the annals of fluctuations of employment in different countries for which we were searching were not available at Geneva, though the International Labour Organisation offered and subsequently gave liberal co-operation to the economists who undertook the work.

It was therefore necessary, if adequate material were to be available as a starting point for discussions in the Congress, that special studies should be undertaken. We were concerned not merely with the present situation; or rather we were so vitally concerned with the present serious problem of unemployment that we believed that we could not confine our attention to this period, but that so far as possible we should secure a statistical picture which might measure changes in employment and unemployment for two decades. Without this retrospective view, it seemed impossible to evaluate the circumstances of the present.

The International Industrial Relations Association is not itself a research agency. It limits its task to the organization of congresses and conferences. But as part of that task it has the opportunity to stimulate inquiries bearing upon the subjects of its program. In this instance the co-operation of economists in several countries was secured. These included Dr. F. C. Benham, of the London School of Economics and Political Science, formerly lecturer in the University of Sydney, Australia, who prepared the reports on Great Britain, France and

INTRODUCTION AND SUMMARY

Australia: Dr. W. A. Berridge, economist of the Metropolitan Life Insurance Company, U. S. A., and member of the Committee on Governmental Labor Statistics of the American Statistical Association (which includes in its work the extension and standardization of statistics of employment and unemployment in the United States and Canada), who prepared the reports on the United States and Canada; Dr. Robert Wilbrandt, formerly of the University of Tübingen and now professor at the College of Technology * in Dresden, who prepared the report on Germany; Mr. L. K. Tao and Mr. S. H. Lin, of the Institute of Social Research, Peiping, who undertook a corresponding study in China; and Dr. Susan M. Kingsbury and Dr. Mildred Fairchild, of Bryn Mawr College, U. S. A., who made an original analysis of available statistics regarding pre-war Russia and the subsequent trend of employment in the U. S. S. R.; their report brought together data not yet studied even by statisticians of the Soviet Union. These economists were assisted by others, whose collaboration they and the Program Committee wish to acknowledge: Mr. S. Brand, B.Com., who worked with Dr. Benham; Mr. Cedric Wolf, who assisted Dr. Berridge in the report on the United States, and Mr. F. W. McComas, Jr., who worked on the report on Canada; and Dr. Gerhardt Isenberg, who collaborated with Dr. Wilbrandt. Of the students at Bryn Mawr College who assisted Dr. Kingsbury and Dr. Fairchild, mention should be made of Mrs. M. Andrée Miskolczy, of Budapest, and acknowledgement for the translations from the Russian is due to Miss May Rollins Smitt, who was born and educated in Riga, taking the course in foreign languages at the University of Petrograd and later at the Sorbonne.

These studies were made possible by funds appropriated to the International Industrial Relations Association through the budget of the Department of Industrial Studies of the Russell Sage

* Technische Hochschule.

INTRODUCTION AND SUMMARY

Foundation. Although the charter of the Foundation limits its work to the United States, the program of the Department of Industrial Studies has included assistance to the Committee on Governmental Labor Statistics of the American Statistical Association in the task of improving governmental labor statistics in the United States. Canada is also represented in this Committee, and naturally one important aspect of statistics in the United States or in any other country is their comparableness with those of other nations. On this ground it was logical to assist in these studies for the Congress, out of which it is hoped may come further impetus toward international uniformity. The appropriations were used mainly for traveling expenses and for the payment of statistical and clerical assistance, with small honoraria to some of the economists; but for the most part their work was a contribution to the Congress, for which we are indebted to them and to their organizations.

It was hoped at first that in the process of carrying on these studies there might be sufficient interchange to make possible a joint report. Shortness of time has prevented this, and hence for the most part these studies represent independent work in the different countries, without joint interpretation or detailed interchange of suggestions regarding procedure.

In advance of undertaking the studies and during their progress the Program Committee prepared outlines of the purpose and scope of the inquiry, with a view to bringing about more or less comparableness in the final ensemble. The relevant points in these memoranda may be summarized as follows:

The subject of the Congress as then formulated was the need for scientific adjustment of economic resources, production and consumption as essential to satisfactory human relations in industry. The Association's focus of interest in this problem was its social and human aspects as reflected in insecurity of employment and in standards of living out of proportion to progress in productive capacity. The first session of the Congress was therefore planned to present the facts on the present economic need: the paradox of recurrent distress in a period of growing potential use of economic resour-

INTRODUCTION AND SUMMARY

c. e. s. In preparation for the treatment of this theme, the economists were asked to prepare reports presenting statistical data on fluctuations in employment, their times and intensity, for the period from 1910 to 1930, for countries whose economic conditions illustrate various types and degrees of economic maladjustment. Parallel with these statistics, it was desired that there should be such statistical and descriptive material as might be available on changes in real wages and in standards of living in these same countries during this twenty-year period. As background it was contemplated that the broad outlines of economic resources throughout the world and changes in productive capacity in the past twenty years would be sketched, some of this material appearing in the separate analyses of countries, but its main trends being shown in the paper to be prepared by Dr. Otto Neurath, Director of the Social Economic Museum in Vienna.

It was emphasized that the inquiry would be sharply focused upon the fact of change in employment and unemployment - that is, upon fluctuations and the dates and intensities of high and low points - rather than absolute measures of the extent of unemployment at any time, which it would not be possible to secure in comparable form in the different countries. The purpose of the studies, then, was to provide the raw material on which the discussion in the first session would be based; and, most important of all, they were to be so planned as to reveal possibilities for more intensive and extensive international studies of fluctuations in employment.

The following was the outline of information desired from each country:

(1) Sources of data described definitely - showing by what governmental department or organization they are collected; the exact form of the schedule on which the data are gathered at the source; and any comments on the circumstances of collection which throw light on the scope and reliability of the information. (This material would naturally be placed in an appendix and may be published only in brief, but it will be useful in making international comparisons and in planning future studies.)

(2) Fluctuations in employment, 1910-1930,⁷ on annual basis (eliminating seasonal fluctuations) for the country as a whole.

As the industrial composition of these countries varies so greatly, this total trend line is to be based upon whatever index is available, and must be representative of the particular country reported upon. Its composition must naturally be described, but it is not expected that the composition will be similar in any two countries.

(3) A similar time series for unemployment, where this is available.

(4) A separate time series of fluctuations in employment and unemployment for the same period of time in specific industries. It is particularly

⁷ In some countries it may be impossible to secure a time series for these twenty years. The dates are given as the general range within which to work.

INTRODUCTION AND SUMMARY

desired to secure these separate analyses, if possible, for (a) coal production; (b) steel; (c) railroad transportation; (d) shipping; (e) metals and machinery; (f) textiles; (g) construction.

It is of course recognized that it may be impossible to include all of these industries, but the list is suggested as an indication of the industries in which international comparisons would appear to have a special significance and which are likely to reveal changes in employment in one country.

(5) Comparative data on trends in production and in man power, particularly in industries where technological changes have occurred in the past twenty years.

(6) Comments on characteristics of unemployment in 1930 in comparison with a previous low point in employment (or a high point in unemployment) in the twenty-year period.

It is expected that studies may have been made of the causes of unemployment at various times during the twenty-year period. Brief summaries and comments will be valuable which are designed to raise questions or indicate conclusions as to the significance of the present unemployment and particularly the new factors and the international aspects which now enter in.

(7) Wages and standards of living. In some countries (for example, the U. S. A.) indices of earnings are obtainable which are collected simultaneously with indices of employment. Wherever it is possible to run these two series together with the series on employment and unemployment, this is much to be desired; but there may be serious difficulties in getting this material, and it is not desired that too much time or effort be put upon it.

As to standards of living and changes in them, while this of course is a vital subject, it can probably be treated in these preliminary studies only by commenting upon obvious changes. It is suggested that these comments, if made, be centered if possible upon the two periods of unemployment (1930 and an earlier period) selected for comparison.

Recognizing the lack of comparableness in data, the memorandum to investigators made the following suggestions:

The data available will of course vary greatly, from the extensive material concerning Great Britain to the lack of statistical material concerning China. In certain countries, as in Great Britain or in Germany, information arising out of administration of unemployment insurances makes possible measures of unemployment, whereas in the United States and Canada we must rely wholly upon information on trends in employment. It is because of this lack of comparableness that it is desirable to focus attention upon the times and intensity of change as reflected in trends in employment, using data on unemployment and other statistical measures of change in business conditions for the light which they will throw upon conditions at the points of change in those countries where the more extensive data are to be had.

The sources to be examined were suggested as follows:

INTRODUCTION AND SUMMARY

(1) Statistics of numbers on the payroll and total wages available, preferably monthly but reducible to annual figures.

(2) Statistics of unemployment, used for the purpose of determining times and intensity of change, rather than absolute information as to extent.

(3) Statistics of public employment offices.

Having determined the dates of change in various countries, effort would then be made to concentrate upon certain of these dates to make an intensive study of the circumstances of change occurring at those times - including statistical measures of production, business conditions and other familiar data observed in studies of the business cycle. For the same periods, descriptive and statistical material would be presented, showing changes in real wages and in standards of living.

The selection of countries was determined in part by the availability of investigators already at work on a similar subject, and in part by the illustrative character of these countries and the urgent importance of their present status in world economy. Nevertheless it was proposed that the material be interpreted at the congress not in terms of the national problem of each of these countries, but rather as illustrative of (1) regions of surplus resources and production, (2) regions of incomplete resources and restricted markets, and (3) regions newly entering upon industrialization.

On behalf of the economists whose reports are here presented, it should be pointed out that not only was their work limited in time and resources, but a space limit was also imposed. They were asked to limit the report on each country to 30 typewritten pages, or approximately 10,000 words. Further condensation was asked for in the form of a synopsis for each country, limited to 800 words. It was suggested that a supplement to each report be prepared, setting forth the scope of the data, and that in addition important statistical material which could not be included within the space limit be incorporated in supplementary tables. This useful supplementary information was too extensive for publication here. It should be understood that the material here printed represents, therefore, a selection from data of wider scope, which, however, confirms the main conclusions offered.

INTRODUCTION AND SUMMARY

SUMMARY.

As the preceding description of the scope and purpose of these studies indicates, each analysis is confined to one nation, though several of these national studies also consider international influences. In the program of the Congress it was the part of Dr. Max Lazard of Paris to draw the data together and to interpret the several studies in a paper on "The Significance of World-Wide Unemployment". With this presentation the Congress opened. At the same session Dr. Otto Neurath of Vienna presented a paper on "The Present Growth in the World's Productive Capacity", and the two together formed a synthesis for discussion under the heading of "The Paradox - Unemployment in the Midst of Economic Progress."¹

It is not the purpose of this introduction to attempt to summarize either the material in these separate studies, which speak for themselves, nor Dr. Lazard's brilliant interpretation, which readers will wish to study as a whole. It may, however, be useful at this point to draw out certain aspects of Dr. Lazard's paper and to supplement these with additional comments on the bearing of these reports on the subject of social economic planning.

The theme of the Congress - Social Economic Planning - was explained in its subtitle, The Necessity for Planned Adjustment of Productive Capacity and Standards of Living. This is a subject which might have deserved attention in such a year as 1928, when on the whole the industrial countries of the world were comparatively prosperous. But the aspect which has now made the theme of the Congress urgently important is the extent of unemployment. Therefore it seemed wise to open the Congress with the facts about it. But it

¹ These two papers and the main points in the discussion of them are published in the volume on Social Economic Planning, which contains the papers and discussion presented at the Congress, leaving to the present volume the factual studies which were issued in advance.

INTRODUCTION AND SUMMARY

seemed relevant also to look upon these facts as the first element in standards of living which would have to be considered if social economic planning were to accept as its objective the planned adjustment of productive capacity and standards of living.

That is to say, it is in general the thesis of those who proposed these introductory studies that fluctuations in employment constitute essentially a menace to standards of living. In other words, though widespread industrial depression and unemployment is a disaster in itself, its frequent recurrence adds to the weight of the disaster and is an influence of quite another kind in disturbing the balance between production and consumption. If industrial progress involved even a slow raising of the standard of living to a level which could then be accepted as fixed, until the next advance should be made possible by increasing production, then even if the level were inadequate, its security would give a basis for living without fear. If, however, the level of life attained in a period of increasing prosperity is almost certain to be lowered and if no workman knows whether he will be among the first to lose his work and wages, life takes on an aspect of uncertainty which prevents the building up of wholesome living and creative activity for the community as a whole and for the individuals which compose it. The fear of recurrence becomes then a question even more important than the extent of unemployment at any one time, and it is for this reason that the effort was made to draw the statistical picture of fluctuations in employment and unemployment for the two decades from 1910 to 1930, or for as many of those years as the available statistics cover.

This, then, is a problem for action. The important question for this international Congress was whether this action should be wholly national or whether unemployment has become also an international problem. The answer to this question was

INTRODUCTION AND SUMMARY

sought, first, in comparing the dates and intensity of change from employment to unemployment in these different countries, to determine whether they synchronized; and second, in analyzing such circumstances affecting the swing upward or downward as the analysts could discover in the studies of their own countries.

Examination of the reports shows on the whole that employment was increasing in the period just before the war; that the first effect of the shock was unemployment in 1914, not only in the countries immediately involved, but in the United States and Canada; that a temporary increase followed the war, but that 1921-22 was marked by depression; and that the present, beginning in 1930, is the lowest point in employment and earnings in the period in which comparable statistics have been kept. Though at the time of the studies the extent of unemployment was less serious in France, it nevertheless appeared to be on the increase and was interpreted as a sign of possible disturbance in the economy of France also.

The exception was the Union of Soviet Socialist Republics, in which this period is marked not by unemployment but by shortage of labor. The information before the war is not sufficient for international comparisons, since, for example, none is available before 1913. After the war, with the new system, the trend of employment has on the whole followed its own line, not synchronizing as closely as do the trends in Germany, Great Britain and the United States. Though there are evidence that the fall in wholesale prices of raw materials and food supplies, which has characterized the present depression in the world market, has affected Russia's returns from exports, nevertheless as a nation the U. S. S. R. gives evidence of a trend of its own toward an increasingly favorable balance of "effective demand" (to use the phrase of the old economics) on the part of consumers in relation to the country's productivity. Moreover, it is the only country in which wages have increased at a slightly higher rate than productivity

INTRODUCTION AND SUMMARY

during this period of technological development in modern industry.

Under quite different circumstances, China also presents a different picture, because its industrial organization is at a different stage from that of the Western world. Comparable statistics are lacking, but the analysis of China's industrial problems brings out the importance to that nation of a policy of international economic co-operation. It is interesting to note that not only has Russia industrialization as its immediate aim, but that the authors of this report on China declare that if standards of living are to be improved there, industrialization is essential. They also point out that the political policies of Western nations, emphasized in the familiar problem of extra-territoriality, greatly complicate China's efforts to develop industry under proper social control for the welfare of the nation. Moreover, ownership and control of China's industries by nationals of other countries are an added complication, and China therefore has some fear that economic planning may be merely another name for exploitation by more highly organized industrial nations.

Turning for a moment from this international view to the unit of employment which is found in the workshop, it is interesting to examine the figures for so-called labor turnover presented in the report on the United States. The unemployed workman is always laid off from some particular workshop, and it is in the individual establishment that the human effects of these widespread fluctuations in production and commerce take shape. The charts prepared for the United States show the trend of hiring and laying off employes in certain selected factories, as compared with fluctuations in employment. A similar chart for the same factories shows the fluctuations in what is called "voluntary quitting" and in discharge during the same period. These charts give a vivid picture of the relation of the individual establishment to the larger economic trends in

INTRODUCTION AND SUMMARY

the national and international economy of which it is a part. It may be said to be a pictorial representation of the reasons why an Association concerned with the study and promotion of satisfactory human relations in industry, which has in the past focussed its interest very largely upon the relations between employer and employe in the individual establishment, should now turn to the larger problem of social economic planning not only by individual establishments but by industries, by nations and in the world economy.

The I. R. I. traces its history back to conferences beginning in 1922. These analyses of fluctuations in employment during the crucial years of the war and through to the present, cover therefore the period of stress which brought the I. R. I. into being, and provide what might be called an index of the weather conditions in which management, labor, personnel directors, engineers and economists included in the membership of the Association have had to do their work in the last decade.

These studies have, moreover, another interest from the point of view of social economic planning. They are a fair test of the much more precise analyses of trends in employment in many different industries and their relationship to each other, which must be an essential part of research in national or international economic planning. Statistics of employment and earnings are, so to speak, the indicator of the degree of balance prevailing between production and purchasing power. Trends in the immediate past are the material which the planners must use to project the immediate future, and fluctuations in the present may be a danger signal indicating that balance is being disturbed.

If such comparisons are to become possible, and they are highly important as data affording a basis of international economic co-operation, efforts must be made toward uniformity. It seems clear from these attempts to secure comparable measurements that to measure unemployment is a difficult task even in one country, and an almost impossible undertaking on

INTRODUCTION AND SUMMARY

an international scale. The reason is clear that the definition of unemployment is difficult and that, whatever be the definition, counting the individuals involved in it is expensive and difficult. The facts about unemployment which are presented for Great Britain and for Germany arise primarily out of the administration of unemployment insurance. These figures would be comparable only if legislation in the different countries were absolutely identical and administered with no variations. Obviously this is not possible. It is only feasible to take the statistics of each country by themselves and measure comparative changes.

This connection between measures of unemployment and administrative procedure is well illustrated in the lack of information in the United States. It is not because the United States is indifferent to statistics, but because it has not adopted unemployment insurance, that it lacks measurements of the extent of involuntary idleness. It does possess, however, an increasingly valuable system of monthly reports of numbers on the payroll and total earnings. Examining the analyses presented in these studies, one is inclined to reach the conclusion that the hope for international comparisons rests in this development of recording month by month or at more frequent intervals, the number employed and the total earnings in representative establishments in typical industries. Such measures are positive and present no difficulties of definition. They are hampered by the difficulty of classifying industries as between different countries. On this subject, as well as on the whole effort to secure uniformity in statistics of employment and unemployment, the International Labour Office has been at work for several years, and its efforts should have the widespread support of industry and of governments in the different nations.

Finally, a word may be said about the circumstances of unemployment in these different countries, particularly as they

INTRODUCTION AND SUMMARY

reveal international aspects. Dr. Lazard concluded that not unemployment, but the general economic crisis, was the subject for study in the present situation. Pointing out that one would look for relevant circumstances in any period of unemployment in (1) the labor market, (2) the selling market and (3) the money market, Dr. Lazard found the significant elements of the present in the selling market and the money market. Moreover, the situation in all three aspects was tremendously complicated by international policies and relationships which were not primarily economic, but have far-reaching economic influence. Nationalism, stimulated by the fear of insecurity, creates an atmosphere in which the essential elements of economic co-operation, at a moment when this co-operation is urgently needed, prevents the restoration of equilibrium in production.

Here is the factual groundwork for the discussion of social economic planning to which these national studies were introductory.

FLUCTUATIONS IN UNEMPLOYMENT IN AUSTRALIA
BY DR. F. C. BENHAM, LONDON SCHOOL OF ECONOMICS AND
POLITICAL SCIENCE, FORMERLY LECTURER IN THE UNIVERSITY
OF SYDNEY, AUSTRALIA.

| | Page |
|--|------|
| • SYNOPSIS | 26 |
| PART I. THE COURSE OF UNEMPLOYMENT | 28 |
| PART II. SPECIAL FEATURES | 29 |
| PART III. THE RECENT SLUMP. | 32 |
| INDEX OF MAIN TABLES. | 34 |
| ADDENDUM | |
| SYNOPSIS (texte français) | 38 |
| „ (deutscher Text). | 41 |

SYNOPSIS

PART I. THE COURSE OF UNEMPLOYMENT.

The Australian statistics of unemployment are compiled from the quarterly returns of certain Trade Unions. As most of the reporting Unions do not pay unemployment benefit, the returns are not very reliable and give only some indication of the direction of fluctuations in employment. It would be misleading to compare them with those of other countries, except for trend. The pre-war period was a prosperous one, and with production and prices increasing, unemployment was comparatively small. Australia shared in the boom of 1919-20 and in the subsequent depression. The next few years were fairly good, but this was largely due to high prices for exports - notably wool and wheat - and external borrowing. Few, if any, countries suffered more heavily than Australia from the world slump beginning in the latter part of 1929 and this was reflected in large and growing unemployment.

PART II. SPECIAL FEATURES.

Comments are made on certain features which may have an international interest.

(1) Australia as a comparatively undeveloped region.

Australia has about the same area as the United States: 3 million square miles. Her natural resources, however, are far inferior. This is due to inadequate and unreliable rainfall and to the absence of very large mineral deposits (except coal). Nevertheless, she is relatively under-populated. It cannot be maintained, however, that her immigration policy has intensified unemployment elsewhere.

(2) Australia and the rest of the world.

Despite the expansion of her manufacturing industry behind a growing tariff, Australia is far from self-sufficing. A third of her production (of goods) is normally exported, and her

AUSTRALIA

Governments owe nearly £ 600 million externally, mainly to Great Britain. Changes in her "balance of trade" lead to expansion or diminution of bank credit at home. Thus her economic fluctuations show a general correspondence with those of other countries, with "seasonal influences" (droughts, etc.) superimposed. She would gain from planned production on a world scale, if that were possible.

(3) Rigidity of Wage Rates.

This is very marked in Australia. Wages are fixed for most workers by Courts and Tribunals on a "cost of living" basis. This has somewhat increased unemployment, especially recently.

PART III. THE RECENT SLUMP.

From 1924 to 1928 Australian Governments borrowed on the average £ 30 million a year abroad. This ceased in 1929 and the prices of her chief exports fell heavily. She departed from the Gold Standard and the premium on Sterling was raised until it exceeded 30 per cent in 1931. This affected countries, notably Great Britain and the United States, to whom Australia is an important market, since her imports were about halved.

FLUCTUATIONS IN UNEMPLOYMENT IN AUSTRALIA¹

PART I. THE COURSE OF UNEMPLOYMENT.

Australia has no system of unemployment insurance. Her statistics of unemployment - apart from the census - are compiled from the quarterly returns of various Trade Unions. Most of these Trade Unions are connected with "manufacturing" industry. As few of them pay unemployment benefit to their members, the statistics have not a high degree of accuracy. They do give, however, some indication of the direction of fluctuations in unemployment. Of course, it would be quite misleading to make a comparison between the unemployment percentage at any date in (a) Australia and (b) some other country - e.g. Great Britain, in order to discover whether unemployment was proportionately greater or less in Australia at that date.

The few years before the war were "good" years for Australia. Production was greater than it had been before and prices were slightly rising. The unemployment percentages recorded for the war years are almost certainly misleading. There was some unemployment owing to droughts and the difficulties of conducting foreign trade, but it was not as great compared with the post-war years as the statistics suggest. In 1919-20 Australia shared in the general boom. Large orders were given for high-priced imports from Great Britain and elsewhere. These imports accumulated as stocks held in Australia and had to be sold at considerably reduced prices during the depression. Moreover, the wholesale prices index number based on 1911 = 100 fell from 2480 in 1920 to 1903 in 1921 and 1758 in 1922. 1921 was a year of depression with heavy unemployment. 1922 was somewhat better but unemployment remained higher than usual. The next few years were fairly good. It will be noticed that the return to the gold standard in April, 1925 was not followed by any considerable fall in prices, as in Great Britain. This was because the tariff wall of Australia had been increasing since the war, whilst her monetary policy since 1920 had been slightly deflationary, so that her prices were almost in equilibrium with gold prices, and her currency was not significantly depreciated

¹ I should like to thank Mr. S. Brand for his aid in compiling the Statistics.

AUSTRALIA

in terms of dollars at the beginning of 1925. The comparatively heavy unemployment of 1928 was partly due to the fairly severe drought. Wheat production in millions of bushels was

| Year ending June 30th | |
|-----------------------|-----|
| 1927..... | 161 |
| 1928..... | 118 |
| 1929..... | 160 |

and this affected the whole of her economy. The growing and very severe unemployment beginning in the latter part of 1929 will be dealt with later.

The statistics of unemployment are not complete or reliable enough to make any more detailed comments worth while. (It may perhaps be mentioned that there is some seasonal movement corresponding to that in countries of the Northern hemisphere. Unemployment tends to be more marked in the winter (2nd and 3rd quarters) but this does not reveal itself very clearly in the statistics). Comments will, therefore, be made on certain special features of Australian economic life which may have an international interest, and on the present slump.

PART II. SPECIAL FEATURES.

(1) Australia as a comparatively "undeveloped" region.

The area of Australia is approximately that of the United States - about three million square miles. Her natural resources, however, are far inferior to those of the United States. Nearly a third of her area is practically "desert" and another third is suitable, in our present state of knowledge, only for fairly sparse pastoral cultivation. This is due either to the low annual rainfall, or its unsatisfactory seasonal distribution or to its unreliability. It is possible to enclose with a line on the map an interior region covering half the total area of Australia and containing only about one person in a thousand of the total population. There are practically no important inland waterways and in spite of quite appreciable coal deposits, her mineral resources are far inferior to those of the United States. The great bulk of her population is on the coastal districts of the South-East and South

FLUCTUATIONS IN UNEMPLOYMENT

and South-West. (The coal is in the South-East.) It seems probable that even when her population has greatly increased it will still be distributed over the area in much the same way, although there is just a possibility that the Northern Territory may be more capable of economically profitable development than its past history indicates.

Nevertheless, it seems certain that Australia is under-populated relatively to European countries and perhaps even absolutely, in the sense that her per capita prosperity would be greater if she had more people, given appropriate capital and organisation. Yet she is just as liable as other countries to unemployment and in 1930 she probably had a larger proportion of her labour unemployed or on short time than any other country in the world. This supports the contention of economists that unemployment has very little to do with the size of the population. It is sometimes pointed out that the "extra" post-war unemployment in Great Britain about equals the number of persons who would have emigrated had emigration continued at the pre-war level and have remained instead in the British labour market. But it would be quite wrong to infer that if emigration had continued at its pre-war level there would have been appreciably less unemployment - for workers and their families are consumers as well as producers. The "White Australia" policy is undoubtedly a delicate and important question which affects other countries, and the restriction in numbers of assisted British emigrants into Australia during recent years has doubtless had some adverse effect on Great Britain, but it would be wrong to attribute unemployment in other countries, in any significant degree, to the immigration policy of Australia.

(2) Australia and the Rest of the World.

During the post-war years Australia has been moving somewhat towards self-sufficiency. Manufacturing industries, many of which were commenced or expanded during the war, have received considerable and increasing tariff protection. Nevertheless, Australia is still very far from self-sufficiency. Although nearly half her population lives in the six capital cities, her agricultural and pastoral production is more important than her

AUSTRALIA

manufacturing production, and a great part of it is exported. The prices which she receives for her exports - mainly wool and wheat - play an important part in her economic life, for (until recently) about a third of her total production of goods was exported, and nearly a third of her total consumption of goods consisted of imports. Her foreign trade per head is comparatively great (for example in 1926 it was £ 49 as compared with £ 39 for the United Kingdom). Again, she has close financial relations with Great Britain. Her Governments have borrowed nearly £600 million abroad, nearly all from Great Britain. Foreign exchange transactions are largely conducted through her banks, which have offices in London. When the London balances of her banks increase (owing, for example, to comparatively large exports) credit is expanded in Australia and conversely. Finally, before the war and from 1925 to 1929, Australia was on the gold standard or, more strictly, the sterling exchange standard. Thus it is easy to understand why the general economic fluctuations in Australia have shown a general correspondence with those of Great Britain and other countries. The special feature of Australia is her dependence upon the rainfall for her crops and livestock. Prolonged and severe droughts may cause, and have caused, depressions not paralleled elsewhere. The reduced purchasing power of her export industries re-acts upon the manufacturing industry selling almost entirely to a home market, upon the sheltered trades, and upon the market for imports. The gain to Australia from planned production throughout the world, if that were possible, would be great. The acreage sown for wheat, for example, might be varied with the acreage sown in competing countries and with the expected demand. Land capable of being used for several purposes - wheat or sheep, for example - could be used for the relatively most advantageous one. At present, there does not seem sufficient knowledge of what other countries are doing or of what world requirements will be. The recent drastic fall in the price of wool, to take the most notable recent example, came apparently as quite a surprise.

Similarly with manufactures. The home market of Australia is too small to permit the economies of large scale production in

FLUCTUATIONS IN UNEMPLOYMENT

certain lines - heavy iron and steel goods, for example. It would be better if Australia would agree not to make such goods, in an uneconomical way, and to modify her tariff accordingly.

(3) Rigidity of Wage Rates.

This is very marked in Australia. Wages and working conditions for most workers are legally fixed by Courts and Tribunals. The "basic" wage for adult skilled male labour is supposed to provide a "reasonable standard of living" for the wage earner and his assumed family; above this are various "margins" for "skill", etc. Similarly with women's wages. Ostensibly, the basic wage is varied in accordance with changes in the cost of living and not with changes in productivity or in the demand for labour. In fact, it has tended to vary with productivity. But throughout the period, and especially in times of depression, the rigidity of this system has doubtless somewhat increased unemployment, however desirable it may be on general grounds. This has been especially apparent during the present severe slump.

PART III. THE RECENT SLUMP.

The extent to which Australia depends upon her exports has been indicated. Her recent dependence upon external borrowing should also be noted. From 1924 to 1928 Australian Governments borrowed on the average £ 30 millions abroad. This "loan" money was spent mainly on public works and developmental purposes and "gave employment" to quite a number of comparatively unskilled workers. (About a fifth of all Australian wage and salary earners are employed by the Crown.)

Early in 1929 it became clear that the British investor had become somewhat apprehensive concerning further loans to Australia and long term extent borrowing by Australia ceased. Then came the drastic fall in the prices of wool and wheat. This is shown in our Table.¹ The price of wheat sank to less than 3/- a bushel at the end of 1930. The result was that Australia

¹ Supplementary Table XII shewing the average spent prices of Australian wool and wheat, for the period 1913-1930, cannot, unfortunately, be published on account of lack of space.

AUSTRALIA

found herself receiving less than £ 100 million a year for her exports, in place of about £ 150 million and no external loan money, in place of about £ 30 million a year. Her total National Income during the post war years has been rather more than £ 600 million per annum; so that the loss was quite considerable.

1929 and 1930 showed clearly the extent to which the comparative prosperity of Australia during the post-war years was based on high prices for her exports. Her volume of production per head (vide Table) showed no signs of increase. It was less than in the pre-war years. Yet increased production per head during this post-war period was a well marked international phenomenon. Australia had been maintaining her standard of living by high export prices and borrowing rather than by improved methods of production.

The adverse balance of payments caused Australia to depart from the gold standard towards the close of 1929 and the premium in sterling rose until it became more than 30 per cent in 1931. This, together with reduced purchasing power and emergency tariffs, led to a heavy reduction of imports, which about halved. This affected especially Great Britain, which supplies over a third of Australia's imports, but also other countries, such as the United States.

Inflation is being urged in some quarters as a remedy. It would reduce the burden of internal fixed claims - interest payments by Governments on the internal debt, by agriculturalists on mortgages, and by borrowers on overdrafts - and it would raise prices without - it is hoped - raising wages. On the other hand, it is urged by others that "the cost of living" basis in wage fixing should be temporarily ignored and that wages should be lowered, while some other means of reducing the burden of fixed claims should be sought.

Whatever the outcome may be, it is quite clear that Australia is closely affected by the position in the rest of the world and that the best permanent way to greater prosperity is an increase in her productive efficiency.

INDEX OF MAIN TABLES.

TABLE I. UNEMPLOYMENT IN AUSTRALIA 1910-1930. (Percentage of members unemployed on total numbers of members of unions for which returns as to unemployment are available.) (Quarterly figures.)

TABLE II. UNEMPLOYMENT IN PARTICULAR INDUSTRIAL GROUPS IN AUSTRALIA 1910-1930. (Engineering, Metal Works, etc., Clothing, Hats, Boots, etc., Building and Mining, Quarrying, etc.) (Quarterly figures.)

TABLE III. UNEMPLOYMENT, NOMINAL AND REAL WAGE INDEX NUMBERS, AND INDEX NUMBERS OF ESTIMATED RELATIVE PRODUCTIVE ACTIVITY PER HEAD OF POPULATION FOR AUSTRALIA 1910-1930. (Annual figures)

TABLE 1. UNEMPLOYMENT IN AUSTRALIA 1910-1930.

| (Percentage of members unemployed on total number of members of unions for which returns as to unemployment are available.) | | | | |
|---|------|-------|-------|--------|
| Quarter | | | | |
| | 1st | 2nd | 3rd | 4th |
| 1910 End of Year: | | | 5.6 | |
| 1911 " " " | | | 4.7 | |
| 1912 " " " | | | 5.6 | |
| 1913 | 6.4 | 7.3 | 7.0 | 5.3 |
| 1914 | 5.9 | 5.7 | 10.7 | 11.0 |
| 1915 | 12.0 | 9.5 | 8.8 | 6.8 |
| 1916 | 5.9 | 5.3 | 5.3 | 6.7 |
| 1917 | 7.5 | 6.3 | 7.1 | 7.4 |
| 1918 | 5.5 | 6.2 | 6.1 | 5.5 |
| 1919 | 6.5 | 8.5 | 6.2 | 5.2 |
| 1920 | 5.6 | 6.2 | 6.2 | 7.8 |
| 1921 | 11.4 | 12.5 | 11.4 | 9.5 |
| 1922 | 9.2 | 9.6 | 9.6 | 8.6 |
| 1923 | 7.2 | 7.1 | 7.4 | 6.6 |
| 1924 | 7.6 | 8.3 | 9.5 | 10.3 |
| 1925 | 9.3 | 10.2 | 7.9 | 8.1 |
| 1926 | 8.2 | 6.7 | 7.6 | 5.7 |
| 1927 | 5.9 | 6.4 | 6.7 | 8.9 |
| 1928 | 10.7 | 11.2 | 11.4 | 9.9 |
| 1929 | 9.3 | 10.0 | 12.1 | 13.1 |
| 1930 | 14.6 | 18.5* | 20.5* | 23.4** |

From the Labour Reports.

* From the Quarterly Summary of Australian Statistics, Bulletin No. 121, September, 1930.

** From the Quarterly Summary of Australian Statistics, Bulletin, No. 122, December, 1930.

TABLE II. UNEMPLOYMENT IN PARTICULAR INDUSTRIAL GROUPS IN AUSTRALIA 1910-1930.

| Year | First Quarter | | | | Second Quarter | | | | Third Quarter | | | | Fourth Quarter | | | |
|------|---|------|------|------|----------------|------|------|------|---------------|------|------|------|----------------|------|------|------|
| | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D |
| 1913 | 6.5 | 7.4 | 9.1 | 8.1 | 6.9 | 10.3 | 9.8 | 7.7 | 8.2 | 8.2 | 9.1 | 8.2 | 7.1 | 1.8 | 3.9 | 8.8 |
| 1914 | 6.3 | 7.1 | 3.8 | 11.8 | 6.2 | 2.9 | 2.5 | 8.9 | 11.7 | 12.9 | 7.9 | 8.3 | 12.8 | 10.3 | 12.9 | 8.2 |
| 1915 | 8.1 | 9.8 | 17.3 | 13.8 | 5.8 | 5.0 | 10.0 | 12.9 | 4.2 | 8.3 | 10.5 | 8.2 | 4.3 | 3.7 | 9.5 | 8.4 |
| 1916 | 3.5 | 4.4 | 9.3 | 10.4 | 4.2 | 1.4 | 10.0 | 5.0 | 5.6 | 2.7 | 9.8 | 4.6 | 7.2 | 2.9 | 10.6 | 5.1 |
| 1917 | 8.5 | 4.5 | 11.9 | 5.3 | 7.9 | 2.4 | 11.3 | 5.0 | 8.3 | 3.5 | 11.7 | 6.5 | 11.2 | 4.2 | 8.3 | 7.4 |
| 1918 | 7.5 | 3.4 | 6.0 | 7.7 | 7.8 | 1.7 | 4.2 | 11.6 | 6.8 | 2.8 | 3.5 | 12.2 | 6.7 | 4.3 | 2.8 | 5.9 |
| 1919 | 6.5 | 7.5 | 3.5 | 6.0 | 7.6 | 6.9 | 3.6 | 9.6 | 5.4 | 4.1 | 4.1 | 10.2 | 5.6 | 1.7 | 2.8 | 6.3 |
| 1920 | 5.3 | 0.7 | 4.7 | 8.0 | 5.7 | 2.0 | 2.8 | 5.3 | 3.6 | 4.8 | 2.6 | 3.5 | 4.3 | 7.3 | 2.1 | 6.0 |
| 1921 | 5.4 | 12.8 | 5.0 | 15.2 | 10.2 | 8.4 | 6.6 | 9.4 | 9.0 | 8.8 | 8.6 | 16.3 | 14.4 | 2.1 | 5.2 | 15.1 |
| 1922 | 17.7 | 1.5 | 5.5 | 12.8 | 14.1 | 1.9 | 4.5 | 16.5 | 17.2 | 2.4 | 4.0 | 11.7 | 15.6 | 2.6 | 2.6 | 13.5 |
| 1923 | 10.6 | 2.6 | 2.7 | 11.7 | 9.5 | 6.3 | 2.9 | 5.5 | 7.7 | 6.6 | 3.5 | 6.9 | 9.3 | 4.2 | 2.8 | 8.1 |
| 1924 | 10.9 | 4.4 | 3.6 | 11.7 | 9.2 | 6.3 | 4.9 | 10.2 | 9.6 | 8.0 | 5.1 | 12.9 | 15.6 | 11.4 | 5.6 | 9.2 |
| 1925 | 14.9 | 7.8 | 6.2 | 8.2 | 15.6 | 6.8 | 8.4 | 8.9 | 7.0 | 7.1 | 9.4 | 7.0 | 7.5 | 3.3 | 5.0 | 7.2 |
| 1926 | 6.5 | 2.8 | 5.2 | 10.7 | 4.7 | 3.3 | 5.7 | 4.8 | 4.7 | 4.7 | 6.1 | 6.7 | 3.9 | 1.6 | 4.8 | 6.7 |
| 1927 | 4.7 | 4.1 | 5.9 | 10.5 | 4.3 | 2.2 | 6.7 | 11.0 | 5.0 | 4.4 | 6.9 | 8.5 | 8.7 | 6.4 | 10.0 | 18.6 |
| 1928 | 13.5 | 9.1 | 11.7 | 20.8 | 12.5 | 11.6 | 12.6 | 17.4 | 12.2 | 12.3 | 11.2 | 20.1 | 12.9 | 7.4 | 8.7 | 17.1 |
| 1929 | 11.2 | 9.8 | 10.6 | 13.2 | 9.4 | 10.2 | 8.8 | 12.0 | 13.2 | 12.8 | 11.9 | 11.3 | 15.4 | 10.0 | 14.3 | 8.6 |
| 1930 | | | | | | | | | | | | | | | | |
| | End of 1912 | | | | | | | | | | | | 7.4 | 6.3 | 5.5 | 5.6 |
| | A Engineering, Metal Works, etc. B Clothing, Hats, Boots, etc. C Building. D Mining, Quarrying, etc. | | | | | | | | | | | | | | | |
| | From the Labour Reports. | | | | | | | | | | | | | | | |

TABLE III. UNEMPLOYMENT, NOMINAL AND REAL WAGE INDEX NUMBERS AND INDEX NUMBERS OF ESTIMATED RELATIVE PRODUCTIVE ACTIVITY PER HEAD OF POPULATION FOR AUSTRALIA 1910-1930.

| Year | (1) Nominal Wages | (2) Percentage Unemployed | (3) Nominal Wages allowing for lost time | (4) Retail Prices | (5) Real Wages Full work | (6) Real Wages, Allowing for Unemployment | (7) Estimated Relative Productive Activity per Head (of Pop.) Index Numbers |
|------|----------------------|------------------------------|---|----------------------|-----------------------------|--|--|
| 1910 | 955 | 5.6 | 945 | 970 | 985 | 974 | 1046 |
| 1911 | 1000 | 4.7 | 1000 | 1000 | 1000 | 1000 | 1000 |
| 1912 | 1051 | 5.5 | 1042 | 1101 | 955 | 946 | 983 |
| 1913 | 1076 | 5.3 | 1071 | 1104 | 975 | 970 | 1020 |
| 1914 | 1081 | 8.3 | 1040 | 1140 | 948 | 912 | 842 |
| 1915 | 1092 | 9.3 | 1039 | 1278 | 854 | 813 | 970 |
| 1916 | 1144 | 5.8 | 1131 | 1324 | 864 | 854 | 916 |
| 1917 | 1226 | 7.1 | 1195 | 1318 | 930 | 907 | 881 |
| 1918 | 1270 | 5.8 | 1255 | 1362 | 932 | 921 | 855 |
| 1919 | 1370 | 6.6 | 1343 | 1510 | 907 | 889 | 834* |
| 1920 | 1627 | 6.5 | 1596 | 1785 | 911 | 894 | 928 |
| 1921 | 1826 | 11.2 | 1701 | 1697 | 1076 | 1002 | 932 |
| 1922 | 1801 | 9.3 | 1715 | 1600 | 1126 | 1072 | 922 |
| 1923 | 1805 | 7.1 | 1760 | 1700 | 1062 | 1035 | 978 |
| 1924 | 1840 | 8.9 | 1759 | 1681 | 1095 | 1046 | 973 |
| 1925 | 1861 | 8.8 | 1781 | 1722 | 1081 | 1034 | 930 |
| 1926 | 1914 | 7.1 | 1866 | 1786 | 1072 | 1045 | 969 |
| 1927 | 1946 | 7.0 | 1899 | 1766 | 1102 | 1075 | 903 |
| 1928 | 1963 | 10.8 | 1837 | 1760 | 1115 | 1044 | 937 |
| 1929 | 1972 | 11.1 | 1839 | 1822 | 1082 | 1009 | |
| 1930 | | | | | | | |

For years prior to 1914 the nominal wages index numbers and the percentage unemployed relate to the end of the year only, but from 1914 onwards these figures in addition to those for retail prices are averages for the whole year.

* The Indices of Estimated Relative Productive Activity per Head of the Population for 1919 and subsequent years refer to the year ending 30th June of the subsequent year.

SYNOPSIS D'UN RAPPORT SUR LES FLUCTUATIONS
DU CHOMAGE EN AUSTRALIE, PAR M. LE DR F. C. BENHAM,
ÉCOLE D'ÉCONOMIE POLITIQUE ET DE SCIENCES POLITIQUES DE
LONDRES, ANCIEN MAITRE DES CONFÉRENCES A L'UNIVERSITÉ DE
SYDNEY, AUSTRALIE.

PREMIÈRE PARTIE. LE MOUVEMENT DU CHOMAGE

Les statistiques de chômage australiennes sont dressées au moyen des relevés trimestriels établis par certains syndicats ouvriers. Comme la plupart des associations qui fournissent des rapports ne paient pas d'allocations de chômages, ces relevés ne sont pas très sûrs et peuvent seulement indiquer jusqu'à un certain point, comment s'orientent les oscillations du chômage. Il serait fallacieux de les comparer aux statistiques d'autres pays, sauf pour en dégager une simple indication de tendance.

La période antérieure à la guerre s'est montrée prospère, et étant donné l'augmentation de la production et des prix, le chômage était relativement restreint. L'Australie a participé à l'emballement économique de 1919-20 et à la dépression qui lui a succédé; puis les quelques années qui se sont écoulées ensuite ont été plutôt satisfaisantes, mais ce fait a été dû en grande partie aux prix élevés obtenus par les exportations, - en particulier par la laine et le blé - et aux emprunts contractés en capitaux extérieur. Peu de pays ont souffert aussi gravement que l'Australie de la dépression universelle qui a commencé vers la fin de 1929; peut-être même aucun pays n'en a-t-il souffert autant, et cette crise s'est traduite par un chômage considérable et en voie de progression constante.

SECONDE PARTIE. CARACTÉRISTIQUES.

Nous commenterons ici certaines caractéristiques de la situation, qui sont de nature à présenter un intérêt international.

(1) L'Australie, région du globe comparative-
ment peu développée.

L'étendu du territoire australien est à peu près la même que

SYNOPSIS

celle des Etats Unis, soit environ 6.775.000 kilomètres carrés. Mais ses ressources naturelles sont, par contre, bien inférieures, circonstance due à l'insuffisance et à l'irrégularité des chutes de pluie, et à l'inexistence de grands gisements minéraux (sauf des gîtes carbonifères). Aussi, bien que le pays soit relativement peu peuplé, l'on ne peut cependant soutenir que la politique d'immigration suivie par l'Australie ait intensifié le chômage dans d'autres pays.

(2) L'Australie et le reste du monde.

L'Australie est loin de se suffire à elle-même, malgré l'expansion de son industrie, qui est protégée par un tarif en voie d'accroissement. Un tiers de sa production (en marchandises) alimente régulièrement l'exportation. D'autre part les divers états australiens, ont contracté, surtout en Grande-Bretagne une dette extérieure de près de £600.000.000. Les changements qui surviennent dans sa "balance du commerce", amènent donc une expansion ou une diminution du crédit bancaire intérieur de l'Australie. Les fluctuations économiques de ce pays se trouvent ainsi concorder de manière générale avec celles d'autres pays, tout en subissant en outre des "influences saisonnières (sécheresse, etc.). Le pays gagnerait à un aménagement de la production faite sur l'échelle du monde entier, si cet aménagement était possible.

(3) Rigidité des taux de salaires.

Cette rigidité est très marquée en Australie. Ce sont des instances et tribunaux spéciaux qui, en se fondant sur le "prix de la vie", fixent les salaires de la plupart des ouvriers. Cette circonstance a quelque peu accru le chômage, ces derniers temps en particulier.

TROISIÈME PARTIE. LA CRISE RÉCENTE.

De 1924 à 1928, les divers états australiens ont contracté à l'extérieur £30 millions d'emprunts par an. Ces emprunts ont cessé en 1929 en même temps que les prix des principales

AUSTRALIE

exportations tombaient considérablement. L'Australie s'est écartée de l'étalon or; de sorte que la prime de la livre sterling a augmenté au point de dépasser 30 % en 1931. En amenant l'Australie à diminuer d'environ moitié ses importations, ce phénomène a affecté certains pays, tels que la Grande-Bretagne et les Etats-Unis, pour qui elle constitue un marché important.

**SYNOPSIS DES BERICHTES ÜBER SCHWANKUNGEN
IN DER ARBEITSLOSIGKEIT IN AUSTRALIEN**
DURCH Dr. F. C. BENHAM, LONDON SCHOOL OF ECONOMICS AND,
POLITICAL SCIENCE, FRÜHER DOZENT AN DER UNIVERSITÄT VON
SYDNEY, AUSTRALIEN

TEIL I. DER VERLAUF DER ARBEITSLOSIGKEIT.

Die australischen Statistiken über Arbeitslosigkeit sind von den vierteljährlichen Berichten bestimmter Gewerkschaften zusammengetragen. Da die berichtenden Gewerkschaften meistens keine Arbeitslosenunterstützung zahlen, sind die Berichte nicht sehr zuverlässig und geben eigentlich nur eine Angabe über die Bewegungsrichtungen in der Beschäftigung. Es würde zu falschen Schlüssen führen, wenn man sie mit denjenigen anderer Länder vergleichen wollte, abgesehen vom "trend".

Die Vorkriegsperiode war eine Periode des Wohlstandes, und bei der Steigerung von Produktion und Preisen war Arbeitslosigkeit verhältnismässig gering. Australien nahm an der Konjunktur 1919-20 und an der folgenden Depression teil. Die nächsten paar Jahre waren verhältnismässig gut, aber die Ursache hierfür lag zum grössten Teil an den hohen Preisen für Exporte - für Weizen und besonders für Wolle - und an den Auslandsanleihen. Kaum ein Land litt schwerer als Australien unter der Weltkrise, welche im letzten Teil des Jahres 1929 begann, und diese ergab grosse und wachsende Arbeitslosigkeit.

TEIL II. BESONDERE ERSCHEINUNGEN.

Bemerkungen sind über gewisse Gesichtspunkte gemacht worden, welche ein internationales Interesse haben könnten.

(1) Australien ist ein verhältnismässig unentwickeltes Land.

Australien hat ungefähr dasselbe Gebiet wie die Vereinigten Staaten von Nordamerika: 3 Millionen Quadratmeilen. Seine natürlichen Hilfsmittel sind indessen weit geringer. Die Ursache hierfür ist unangemessener und unzuverlässiger Regen-

AUSTRALIEN

fall und das Fehlen von wirklich grossen Mineralvorkommen mit Ausnahme von Kohle. Nichtsdestoweniger ist es relativ unterbevölkert. Die Behauptung kann indessen nicht aufrecht erhalten werden, dass seine Einwanderungspolitik anderswo Arbeitslosigkeit vergrössert habe.

(2) Australien und die übrige Welt.

Trotz der Ausdehnung seiner verarbeitenden Industrie hinter einem wachsenden Zolltarif ist Australien von einer Autarkie weit entfernt. Ein Drittel seiner Produktion (von Waren) wird normalerweise exportiert, und seine Regierungen schulden dem Auslande, besonders Grossbritannien, fast 600 Millionen Pfund Sterling. Veränderungen in seiner "Handelsbilanz" führen im Inlande zur Ausdehnung oder Verminderung von Bankkrediten. Dadurch zeigen seine wirtschaftlichen Schwankungen eine allgemeine Korrespondenz mit denen anderer Länder, wozu noch "Saisonschwankungen" (Dürren etc.) treten. Es würde gewinnen durch einen Produktionsplan auf weltwirtschaftlicher Grundlage, wenn das möglich wäre.

(3) Starrheit der Lohnsätze.

Dieser Punkt ist in Australien sehr bemerkenswert. Löhne werden für die meisten Arbeiter durch Gerichte auf Grundlage der "Lebenshaltungskosten" festgesetzt. Dieser Umstand hat die Arbeitslosigkeit einigermaßen vermehrt, besonders in der letzten Zeit.

TEIL III. DIE GEGENWAERTIGE KRISE.

Von 1924 bis 1928 nahmen Australiens Regierungen im Jahresdurchschnitt 30 Millionen Pfund Sterling Auslandsanleihen auf. Dieses hörte 1929 auf, und es trat in den hauptsächlichlichen Exportprodukten ein schwerer Preissturz ein. Das Land ging vom Goldstandard ab, und die Sterlingprämie stieg, bis sie 30 % im Jahre 1931 überschritt. Dies wirkte auf andere Länder, besonders Grossbritannien und die Vereinigten Staaten für welche Australien ein wichtiger Markt ist, da seine Einfuhr ungefähr halbiert wurde.

**EMPLOYMENT AND INCOME OF LABOR IN CANADA,
 1910-1931** BY W. A. BERRIDGE, PH.D.,¹ ECONOMIST OF THE
 METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK.

| | Page |
|---|------|
| SYNOPSIS | 46 |
| INTRODUCTION | 48 |
| UNEMPLOYMENT AMONG TRADE UNIONISTS | 48 |
| LONG-TIME TENDENCIES: MANUFACTURE AND MINING | 50 |
| POST-WAR FLUCTUATIONS | 54 |
| MONEY INCOME VERSUS PURCHASING POWER | 61 |
| ADDENDUM | |
| SYNOPSIS (texte français) | 65 |
| . (deutscher Text) | 67 |

¹ Acknowledging the assistance of Mr. F. W. McComas Jr., and other members of my staff.

SYNOPSIS.

UNEMPLOYMENT AMONG TRADE UNIONISTS.

There are no data available on the extent of, or changes in, unemployment in Canada during the years 1910-1915, but in the light of what is known about industrial production and other economic conditions, it is unlikely that unemployment was a problem of great importance until the depression of 1914-1915. Sample data collected (beginning with December 1915) on unemployment among trade union members, though of dubious value as a measure of the true rate of unemployment among all labor groups in Canada, probably furnish a fairly satisfactory index of the direction of unemployment changes. These figures indicate substantial increases in unemployment during 1920-1921 and again in 1930-1931; a more moderate increase in unemployment developed also during 1924-25. The data are collected and published currently by the Employment Service of the Dominion Department of Labour, with the advice and assistance of the Dominion Statistician.

LONG-TIME TENDENCIES: MANUFACTURE AND MINING.

Payroll data, by years, secured by the Censuses of Manufactures and Mines, which have been taken annually during the past decade or so in Canada, are used in the discussion of employment changes in these industries.

POST-WAR FLUCTUATIONS.

Monthly index-numbers of employment, constructed by the Dominion Statistician from sample data, are presented as of use in tracing the cyclical and seasonal behaviour of various types of employment in Canada. These are shown for all industries combined (exclusive of agriculture), and for various constituents such as manufacture, mining, communications, construction and maintenance, trade, and transportation. Comparable employment data for agriculture do not exist.

SYNOPSIS

MONEY INCOME VERSUS PURCHASING POWER.

An index of wage-earners' cost of living in Canada is used in conjunction with the annual census data on aggregate factory workers' money income (amount of factory payrolls) in order to throw light on the fluctuations of "real income", or commodity purchasing, of this group of employees.

EMPLOYMENT AND INCOME OF LABOR IN CANADA, 1910-1931.

INTRODUCTION.

As in the United States, there is available in Canada a monthly record of unemployment among members of certain unionized trades. The Canadian figures are much more useful for the purpose of the present study, partly because they extend over a much longer period (although not all the way back to 1910); moreover, they have certain intrinsic statistical merits of accuracy and dependability, which probably render them superior to the American trade union unemployment data as registers of economic conditions among the laboring classes. It is therefore appropriate to introduce the description of Canadian labor conditions by some consideration of the variations in trade union unemployment there.

UNEMPLOYMENT AMONG TRADE UNIONISTS.

These unemployment data are gathered and published by the Employment Service Branch of the Dominion Department of Labour, with the advice and assistance of the Dominion Statistician. Returns are made by about 1,700 local trade unions, having an aggregate membership of approximately 200,000 workers; the reporting sample has ranged as high as 70, 80 or even 90 percent of all organized workers in Canada. Unemployment is defined as "involuntary idleness due to economic causes"; persons engaged in work other than their own trades, or idle because of illness, are not considered as unemployed, while unions involved in industrial disputes are excluded from the tabulations."² The initial data cover the month of December 1915; after June 1916 they were continued quarterly until January 1919, when they became monthly.

It is impossible to cite any data for the five years beginning with 1910, but in the light of what we know about industrial production and other economic conditions in Canada it is likely

² The Canada Year Book 1930, p. 732.

that unemployment did not at any time constitute a problem of great importance, until the depression of 1914-15. The earliest figures tabulated show that in December 1915 the proportion unemployed in all the Provinces combined was 7.9 percent of the entire membership of reporting unions. It is probable that if data were at hand they would show higher figures than this during the year or year and a half previous to December 1915. Although we do not maintain that the figures recorded constitute an accurate representation of the true percentage unemployed among all workers in the Dominion, it is probable that the fluctuations in the reported percentage unemployed do constitute a fairly satisfactory barometer of changes in employment conditions. During the three years from 1916 through 1918, this percentage remained low, averaging roughly 2 percent; but it rose during the economic readjustment year 1919, attaining 4.3 percent in December. As the first half of 1920 was a period of prosperity, unemployment again shrank nearly to 2 percent by June, but during the second half of that year and all of 1921 it averaged much higher, reaching a peak of 16.5 percent in March and then (after a seasonal reduction) rising to a winter peak of 15.1 percent in December 1921.

During the next two years unemployment resumed lower levels, falling as low as 2 or 3 percent at times, but in 1924 it rose to 12 percent. From that point on, the ratio went down, falling to a particularly low figure in some months of 1926 and 1928. After industrial recession set in during 1929, unemployment again rose, attaining 11.4 percent in December of that year and a maximum of 17.0 percent in December 1930. The 1931 data that have become available by the early part of June are as follows: 16.0 for January, 15.6 for February and 15.5 for March. The accompanying Table 1 shows further details of the fluctuation in this labor barometer. The reader interested in unemployment within particular Provinces will find corresponding information in the *Canada Year Book* (for instance that of 1930, p. 733) and currently in the *Labour Gazette*, where unemployment is also shown for particular groups of trades. But for the most effective segregation of economic

EMPLOYMENT AND INCOME OF LABOR

groups, it is necessary to utilize the more dependable figures on employment collected by the Dominion Statistician from employers.

TABLE I. PERCENTAGE UNEMPLOYED AMONG REPORTING TRADE UNIONS IN CANADA

| | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 |
|-----------|------|------|------|------|------|------|------|------|------|
| January | | | | | 3.9 | 4.0 | 13.1 | 13.9 | 7.8 |
| February | | | | | 5.2 | 4.0 | 16.1 | 10.6 | 6.4 |
| March | | | 2.2 | 1.7 | 5.0 | 3.1 | 16.5 | 9.6 | 6.8 |
| April | | | | | 4.4 | 2.5 | 16.3 | 10.4 | 4.6 |
| May | | | | | 3.6 | 2.4 | 15.5 | 8.7 | 4.5 |
| June | | 2.1 | 1.2 | 0.4 | 2.6 | 2.1 | 13.2 | 5.3 | 3.4 |
| July | | | | | 2.4 | 2.4 | 9.1 | 4.1 | 2.9 |
| August | | | | | 2.2 | 2.4 | 8.7 | 3.6 | 2.2 |
| September | | 1.5 | 1.7 | 0.7 | 1.8 | 3.3 | 8.5 | 2.8 | 2.0 |
| October | | | | | 2.0 | 6.1 | 7.4 | 3.9 | 4.8 |
| November | | | | | 3.6 | 10.2 | 11.1 | 6.2 | 6.2 |
| December | 7.9 | 2.0 | 2.5 | 2.5 | 4.3 | 13.0 | 15.1 | 6.4 | 7.2 |
| | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| January | 7.5 | 10.2 | 8.1 | 6.4 | 6.8 | 6.3 | 10.8 | 16.0 | |
| February | 7.8 | 9.5 | 8.1 | 6.5 | 7.0 | 6.8 | 11.5 | 15.6 | |
| March | 6.7 | 8.5 | 7.3 | 5.7 | 6.5 | 6.0 | 10.8 | 15.5 | |
| April | 5.1 | 8.7 | 7.3 | 6.0 | 5.2 | 5.5 | 9.0 | | |
| May | 7.3 | 7.0 | 4.9 | 5.2 | 3.7 | 4.0 | 10.3 | | |
| June | 5.8 | 6.1 | 4.1 | 3.2 | 3.2 | 2.9 | 10.6 | | |
| July | 5.4 | 5.2 | 2.3 | 3.3 | 2.5 | 3.0 | 9.2 | | |
| August | 6.5 | 4.4 | 2.5 | 3.7 | 2.4 | 3.5 | 9.3 | | |
| September | 5.9 | 5.7 | 3.3 | 3.1 | 2.2 | 3.7 | 9.4 | | |
| October | 6.8 | 5.1 | 2.6 | 3.9 | 3.1 | 6.0 | 10.8 | | |
| November | 9.7 | 5.7 | 4.7 | 5.2 | 4.2 | 9.3 | 13.8 | | |
| December | 11.6 | 7.9 | 5.9 | 6.6 | 6.6 | 11.4 | 17.0 | | |

LONG-TIME TENDENCIES : MANUFACTURE AND MINING.

Naturally, a young and vigorous country like Canada would be expected to show a strong, healthy rate of growth in its leading lines of employment. As to agriculture and certain other important activities, actual employment data covering the entire period 1910-31 are inadequate or entirely lacking. Even for an

CANADA

important line like mining, continuous yearly data were not collected prior to 1922, nor for manufacturing prior to 1917, although various census data collected at less frequent intervals than yearly are helpful in this connection.

At a casual glance it might be thought that some of the early figures which are available fail to confirm the expectations of long continued growth. For example between 1910, the initial year of the period now under review, until 1915, the number of factory employees appears to have actually diminished. True, the amount of salaries and wages paid rose from about \$247,000,000 to \$290,000,000; but the best approximations we can derive for the number of employees suggest a shrinkage from about 525,000 to 515,000 in all manufacturing establishments irrespective of size. It must be remembered that this was a period when wage rates like prices were on the rise, thereby swelling the volume of wage and salary disbursements.

However, this impression of hesitant growth or actual relapse in the earlier years of the period under review is more apparent than real; the setback in 1915 reflects primarily the industrial depression which gripped Canada as it did the United States during 1914 and 1915. Though the underlying tide itself was strong and had been strong some time as suggested by comparison with the earlier years 1900 and 1905, when employees in establishments having five hands or more numbered 339,000 and 384,000 respectively, as compared with 515,000 in 1910 for establishments similarly defined. Moreover, prior to 1900, the available statistics reflect the strong up-surge, although some of the figures in the earlier census years must be interpreted cautiously because of varying census methods and coverage.³

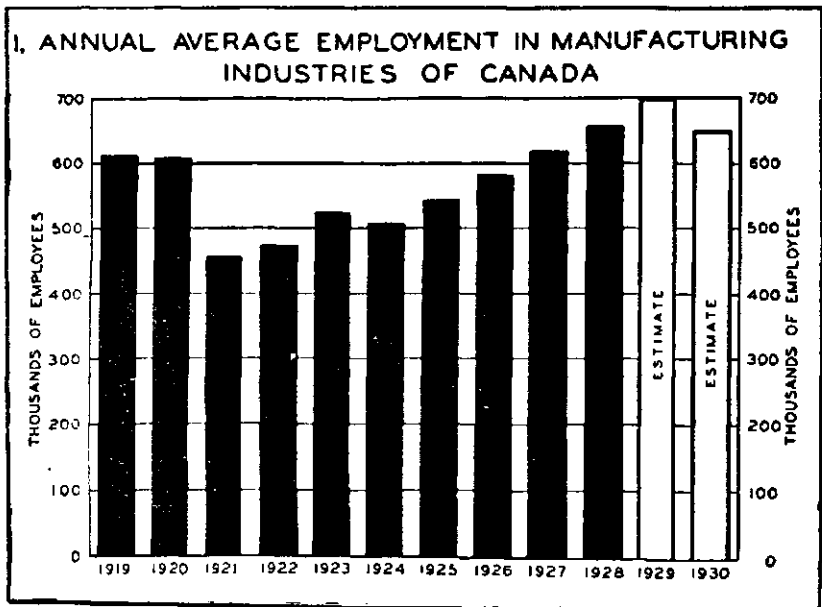
In 1917, when these figures first became available annually, the total number of employees in all manufacturing establishments numbered 622,000, and they received salaries and wages of \$509,400,000. During the next year, the last one of the War, the number of employees shrank to 618,000, even though wages and salaries increased to \$582,500,000, owing to the effect of

³ For supplementary data bearing upon the growth of manufactures in Canada prior to 1910 see the Canada Year Book 1930, pp. 386-7.

EMPLOYMENT AND INCOME OF LABOR

labor scarcity and wage rates. During the first year of post-war adjustment, the same movements continued - employees declining to 611,000, salaries and wages increasing to \$618,500,000. Even the year 1920, the first half of which witnessed considerable activity in industry, shows a continuation of this shrinkage of employees, though with further expansion in salaries and wages.

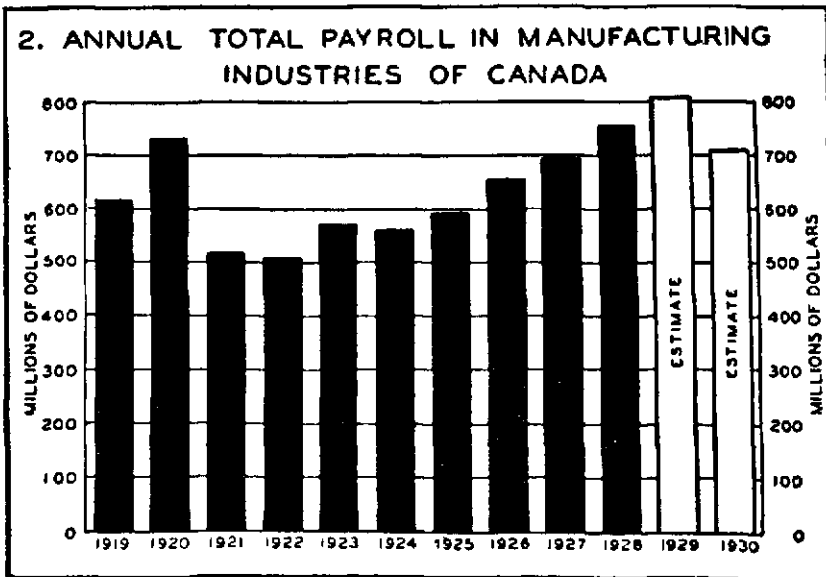
The depression of 1921 brought the number of employees down within one year from 610,000 to 456,000, and the amount of salaries and wages from \$732,000,000 to \$519,000,000. The year 1922 witnessed recovery to an average employment of 474,500, but wages and salaries were still further curtailed than in 1921 - from \$519,000,000 down to \$510,500,000 - owing chiefly to the lagging influence of wage-rate cuts.



The accompanying Chart 1 graphically portrays the extent of this temporary economic interruption between the first two post-war years and the two immediately following. It also conveys strikingly to the mind the rapid, and relatively uninterrupted, growth subsequent to 1922. It is readily evident that

the setback due to the depression of 1924 failed to reduce employment to a point as low as 1922, and that the more severe depression of 1930 failed to reduce it much below the level of 1928 - i.e. 658,000. Our estimates (700,000 for 1929, and 650,000 for 1930) are closely corroborated by the Dominion Statistician from the more complete data at his disposal.

It is clear also from Chart 2 that the aggregate amount of factory payrolls has been rising without much interruption since the drastic cut of 1921-22. Payrolls in the latter year approximated \$500,000,000, but by 1928 had risen by 50 percent, or to \$750,000,000. According to our own estimates for the last two years, the aggregate payroll rose by approximately \$50,000,000 in 1929, and in 1930 fell by about \$100,000,000 from that peak: but final official figures are not available for either of these two years, pending completion of the annual census returns.

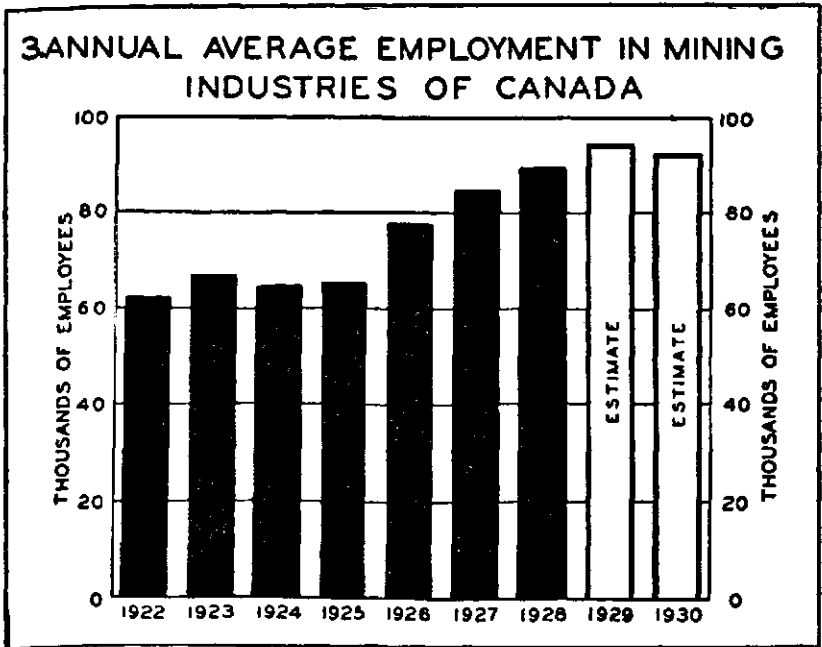


Among the extractive industries, which naturally figure to a large extent in the economic activities of a young country, mining is the most important one on which complete employment data are available at sufficiently frequent intervals to be helpful in the present inquiry. As previously intimated, even the figures

EMPLOYMENT AND INCOME OF LABOR

for this group of industries were not collected in a complete and continuous form prior to 1922.

The growth in mine employment since 1922 is portrayed on Chart 3. Following the 1923 recovery, employment in this group of industries was slightly curtailed during 1924-25, but thereupon expanded abruptly and maintained a rapid rate of gain throughout 1929, when it attained a total of 94,000 to 95,000 employees, which is almost exactly 50 percent greater than the



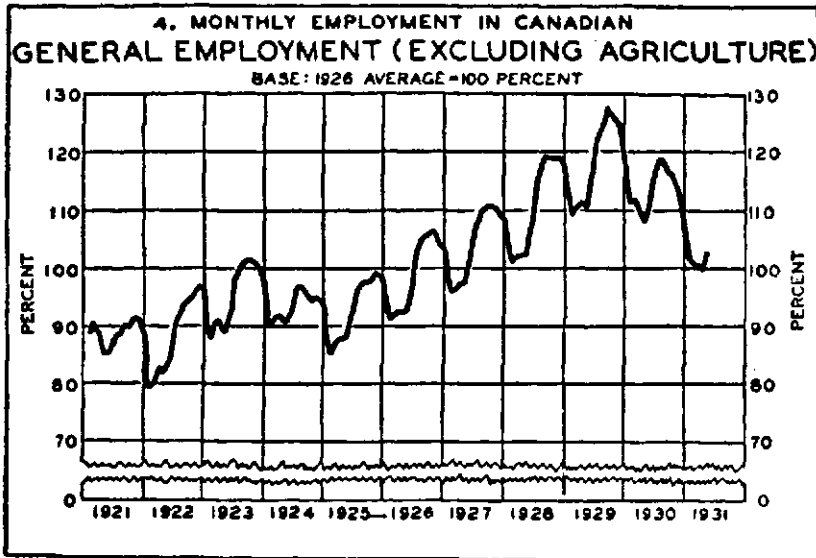
number on payroll seven years before. According to preliminary calculations, the average decline during 1930 was relatively slight in the mining group, bringing the total down to 92,000 or 93,000.

POST-WAR FLUCTUATIONS.

While the foregoing sections help to show succinctly the growth of certain Canadian employments over a period of years, and to some degree the alternately accelerating and retarding influence of economic booms and depressions upon that growth, such an analysis cannot fully register the extent of these cyclical

interruptions, because each year's average covers a multitude of important cyclical aberrations within the year; and, of course, such treatment necessarily obscures the normal seasonal fluctuations, which in Canada are highly important. These seasonal fluctuations, and a closer approximation to the full effect of cyclical fluctuation, must be determined from monthly rather than yearly data.

In Canada, monthly statistics of employment represent a more comprehensive list of economic activities than in the United States or any other country. The list comprises practically all employer groups except Agriculture, namely: Manufacture, Mining, Logging, Construction and Maintenance, Trade, Transportation, Communications, and Services of several important



types. Seven of these eight groups are suitably sub-divided in the reports issued by the Dominion Statistician. For technical reasons the monthly statistics are not perfectly comparable with those obtained at the Censuses, nor indeed with certain monthly and weekly statistics collected by another Canadian Office in the period 1919-20; but they are nevertheless gathered from a very large sample. At present, they cover all of those employers

EMPLOYMENT AND INCOME OF LABOR

(except in agriculture) having 15 or more workers on payroll; in March 1931 they comprised nearly 7,500 employers, having on payroll more than 900,000 workers despite the prevailing weakness in economic conditions hereinafter described. Such a sample yields valid indicators of monthly fluctuations all the way back to the last major depression, 1921. It is unfortunate that no companion data on amount of payroll are available for Canada on this monthly basis.

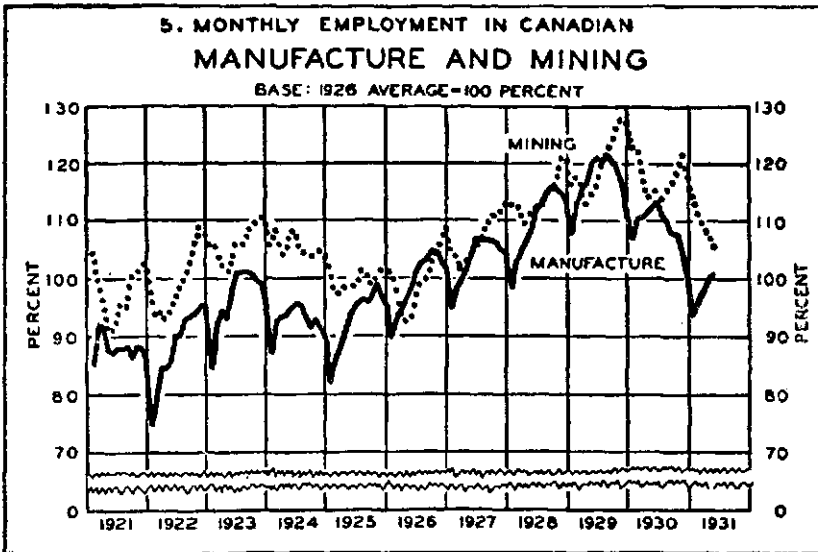
An index representing the combination of all employments except agriculture is shown on Chart 4. The seasonal ebb and flow within each year are strikingly evident. The first quarter and part of the second always witness a characteristic weakness followed by a vigorous revival, commencing at about the middle of the second quarter and culminating at a very high peak - usually in the third or fourth quarter; the movement between December and January, and thence on into February of most years, is an abrupt downward one. The range between the trough and the peak within each year averages about 12 percent, but in some years it is as little as 7 or as much as 18 percent, depending of course upon the accelerating or retarding influence exerted by general economic conditions at a particular time.

During early 1931, the usual type of seasonally depressed levels prevailed; these were followed by the almost invariable April-to-May rise. The resultant effect of seasonal and cyclical forces leaves this combined index (as of May 1931) at 102 percent of its 1926 average. The May level is 26 points, or 20 percent, below the peak of 128 in the autumn of 1929, when cyclical and seasonal forces were both operating at a maximum. Roughly one-half of the subsequent reduction was due to cyclical depression, and the other half to seasonal curtailment. From January 1931 to May 1931, the employment curve fluctuated at levels not quite as high as the half-way mark between the 1929 peak and the low point of 79 to which this curve had dipped in January 1922.

Manufacture, which has come to occupy a position second to none among these Canadian employments, naturally accounts

CANADA

for a large part of the fluctuations - both cyclical and seasonal - in the general curve. Indeed, the seasonal movements of factory employment are much more violent here than in the United States, as may readily be seen by comparing Chart 5 with the manufacturing employment chart in the paper analyzing United States conditions. The cyclical movements are of approximately the same order of severity in the two countries. But owing to the greater rate of growth in the younger country, actual employment in Canadian factories has been reduced to a level not nearly so low as in the last previous major depression; whereas the United States curve has finally dipped below its 1921 minimum. For Canada, the level of February-March 1931 (97) is as much as 20 points above the low of January 1922, just as the 1929 high of about 122 was approximately 20 points



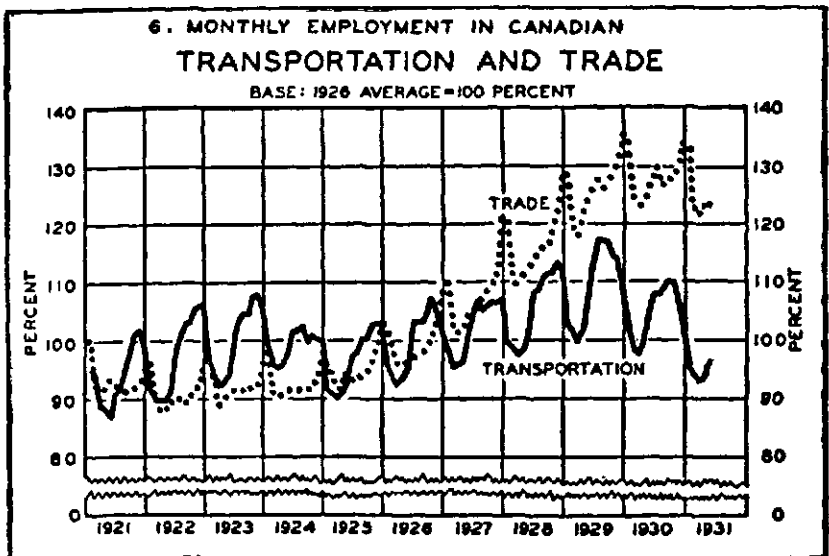
above the maximum level reached by this manufacturing index in the boom year 1923.

Mining employment⁴ shown by the dotted line in Chart 5, has not progressed as rapidly during the post-war period as manufacturing employment, shown in the full line in the same chart;

⁴ For technical reasons, the mining index here shown is not fully comparable with the census aggregates of Chart 3.

EMPLOYMENT AND INCOME OF LABOR

the mining curve during the past five years has not exceeded its status during the previous five by as wide a margin. The seasonal movements too are somewhat different in some respects; in particular, the troughs and peaks are usually one to three months later for mining than for manufacture, and the "amplitude", or range from peak to trough, is frequently of milder proportions for mining than for manufacture. But in other respects the two lines of activity are not dissimilar; their cyclical course itself is, in general, much alike in the two industries, as to both timing and amplitude - although of course much obscured by the cross-currents of seasonal variation. In the depression of 1930-31 (with May 1931 data as the most recent at hand), the combined effect of cyclical and seasonal curtailment appears to have been somewhat worse for manufacture than for mining.



The two started down late in 1929 from a high of about 122 for manufacture, and of about 128 for mining; but data available to May 1931 record a 1931 low of 94 (January) for manufacture as against 106 (May) for mining. The fact that February and subsequent months witnessed increasing employment in manufacturing lines means that there was a purely seasonal

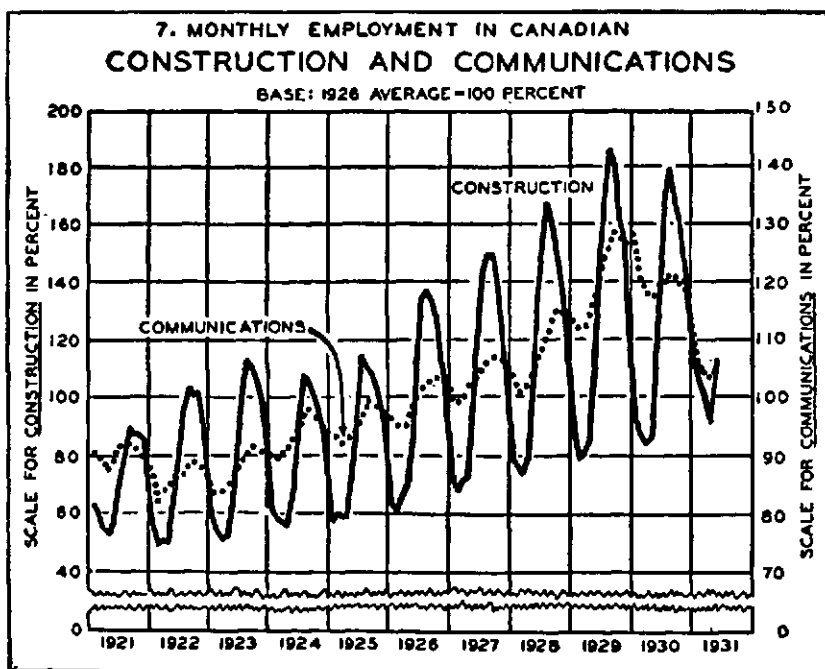
strengthening such as has customarily occurred during those months of almost all earlier years on record. Similarly, further declines in mining employment during those months were of a seasonal nature, since (as pointed out above) there is a lag of about three months in those two industries between the periods of seasonal expansion and contraction.

Transportation and Trade employments since 1921 are pictured on Chart 6. The former shows a rate of post-war growth clearly slower than that of trade - or indeed almost any other of the Canadian employment classes. From the standpoint of seasonal fluctuations, transportation closely resembles, in both timing and intensity, the form characteristic of the combined non-agricultural and of the manufacturing industries presented on Charts 4 and 5, respectively. The recent slump has brought transportation to a point lower than any attained since the spring of 1926, and within six points of the lowest recorded by the curve - in the spring of 1921. Contrast this with the trade group, which has slumped only about 13 points below its high position of December 1930 - i.e. from 135 to 122 - and in March 1931 stands nearly 40 percent above its status in the worst part of the 1921-22 depression. Brief scrutiny of the dotted curve for trade on Chart 6 is enough to show that the cyclical behavior of employment in that line of activity is of small consequence compared with the seasonal; this fact is corroborated by trade employment figures in some other countries and probably is a fairly fixed characteristic.

Construction and Communications, shown on Chart 7, have other striking features. Employment in construction (which includes not only building construction, but also roadbuilding, as well as railroad construction and maintenance) exhibits a peculiarly violent response to the round of the seasons. Considering Canada's latitude and climate, it is not surprising to find frequently that employment in some months is more than double that of other months of the same year. Physical necessity requires concentration of such outdoor operations to a large extent in the six months from May to October inclusive; the four months January-April witness by far the dullest portion

EMPLOYMENT AND INCOME OF LABOR

of the year in this industry. Nor is there any perceptible tendency for the seasonality to become less violent as time goes on. The long-time growth of Canada's construction is such a striking one as almost to obliterate the cyclical characteristic, and even a depression as serious as that of 1930 caused practically no curtailment in such activity, as compared with the record-breaking level of the curve in 1929. It is an interesting fact that the slump beginning in the autumn of 1930 failed by the spring of 1931 to bring the index down any lower than to 96 percent of its 1926 average, as compared with 86 at the best corresponding seasonal low recorded in earlier years.



Communications, however, record a milder seasonal with a stronger cyclical characteristic. The former type of fluctuation rarely or never causes more than a 10 percent range between the peak and the trough of the seasonal change - except of course when cyclical forces happen to be so timed as to accentuate a seasonal rise (as in the second and third quarters of 1929) or a seasonal fall (as in the six or seven months

ending April 1931). The April 1931 position at 103 is about 25 percent below the peak in the winter of 1929-30, but is nevertheless 21 points above the low or 82 in early 1922.

MONEY INCOME VERSUS PURCHASING POWER.

As in the United States and other countries, the cost of living has fluctuated so violently at times during the last half-generation as to alter rather radically the inference which might otherwise be drawn from the yearly fluctuations in money income.

No monthly index of wage-earners' cost of living is available monthly for Canada as far back as the 1910 datum year of the I. R. I. studies, but since January 1913 a very good index is available, so compiled by the Dominion Statistician as to cover rents, clothing, foods, fuels and various other items in the workingman's family budget, and "so constructed as to show the trend of the cost of living for an average middle class family, with an expenditure of about \$2,500 per annum."⁵ The fluctuations since 1921 have generally been slight - hardly exceeding a maximum range of 6 percent in movement between peak and trough. But at the height of the 1920 boom living costs remained for several months at a point between one-quarter and one-third above that level, whereas in 1914 and 1915 costs were about one-third below their recent average annual level.

When such gyrations are discounted from the money incomes it becomes clear that the actual volume of purchasing power for goods and services has changed in a manner rather different from money incomes - taking those of factory workers as an example. The rise in this group's income during 1920, as shown by Chart 2, is now seen to have been in large part fictitious. that is, the advance in living costs was so sharp as to prevent the physical purchasing power from advancing by more than a comparatively small part of the increase signified by money income. Conversely, the 1921 fall of money income was to a considerable extent compensated for by cheapened living costs. The shrinkage in factory workers' income during the depression of 1930 was also partially compensated for by a decline in the

⁵ See the Canada Year Book 1929, p. 779.

EMPLOYMENT AND INCOME OF LABOR

cost of living, but to only a rather small extent. The estimated payroll for 1930 decreased by about 12 percent, while the cost of living fell by less than one percent. The yearly changes in index numbers for all three of these related variables - here referred to the initial year 1917 as a base or 100 percent - are recapitulated in Table 2.

New York, June 11th 1931.

TABLE II.
FACTORY WORKERS' MONEY INCOME AND PURCHASING POWER

| | Amount of Payrolls (\$ Millions) | Payrolls | Index Numbers 1917-100 % | |
|-------|-------------------------------------|----------|--------------------------|------------------|
| | | | Cost of Living | Purchasing Power |
| 1917 | 509.4 | 100.0 | 100.0 | 100.0 |
| 1918 | 582.5 | 114.4 | 113.8 | 100.5 |
| 1919 | 618.5 | 121.4 | 125.3 | 96.9 |
| 1920 | 732.1 | 143.7 | 145.2 | 99.0 |
| 1921 | 518.8 | 101.8 | 127.6 | 79.8 |
| 1922 | 510.4 | 100.2 | 116.8 | 85.8 |
| 1923 | 571.5 | 112.2 | 116.8 | 96.1 |
| 1924 | 559.9 | 109.9 | 114.5 | 96.0 |
| 1925 | 596.0 | 117.0 | 116.0 | 100.9 |
| 1926 | 653.9 | 128.4 | 116.8 | 109.9 |
| 1927 | 693.9 | 136.2 | 115.1 | 118.3 |
| 1928 | 755.2 | 148.3 | 115.5 | 128.4 |
| 1929* | 810.0 | 159.0 | 116.8 | 136.1 |
| 1930* | 710.0 | 139.4 | 116.0 | 120.2 |

* All 1929 and 1930 figures estimated.

TABLE III. EMPLOYMENT IN CANADA

| Total Employment and Eight Major Industrial Groups | | | | | | | | | | |
|--|--------------------|------|-------|-------|-------|------|-------|-------|-------|-------|
| Base: 1926 Average - 100 Percent | | | | | | | | | | |
| | (Average for Year) | | | | | | | | | |
| | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| All eight groups | 88.8 | 89.0 | 95.8 | 93.4 | 93.6 | 99.6 | 104.6 | 111.6 | 119.0 | 113.4 |
| Manufacturing | 87.7 | 88.3 | 96.6 | 92.4 | 93.0 | 99.6 | 103.4 | 110.1 | 117.1 | 109.0 |
| Mining | 98.0 | 99.5 | 106.2 | 105.3 | 99.8 | 99.7 | 107.0 | 114.4 | 120.1 | 117.8 |
| Transportation | 94.1 | 97.8 | 100.3 | 99.1 | 96.6 | 99.7 | 102.5 | 105.9 | 109.7 | 104.6 |
| Trade | 92.7 | 90.8 | 92.1 | 92.5 | 95.1 | 99.2 | 107.4 | 116.1 | 126.2 | 127.7 |
| Construction and Maintenance . | 71.1 | 76.7 | 80.9 | 80.3 | 84.9 | 99.2 | 109.0 | 118.8 | 129.7 | 129.8 |
| Communications | 90.2 | 86.4 | 87.6 | 93.7 | 95.5 | 99.6 | 103.8 | 108.2 | 120.6 | 119.8 |
| Logging | 103.0 | 85.2 | 114.2 | 116.7 | 105.4 | 99.5 | 109.3 | 114.5 | 125.8 | 108.0 |
| Services | 83.6 | 81.9 | 87.9 | 93.8 | 95.4 | 99.5 | 106.2 | 118.1 | 130.3 | 131.6 |

TABLE IV. EMPLOYMENT IN MANUFACTURING INDUSTRIES IN CANADA

| Base: 1926 average - 100 percent | | | | | | | | | | | |
|----------------------------------|------|------|-------|------|------|-------|-------|-------|-------|-------|-------|
| | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
| Jan. | 84.8 | 74.4 | 84.5 | 86.7 | 81.7 | 90.0 | 94.7 | 97.9 | 107.3 | 106.5 | 93.7 |
| Febr. | 91.8 | 79.0 | 92.0 | 91.9 | 85.8 | 93.0 | 98.2 | 102.3 | 112.8 | 110.2 | 96.1 |
| Mar. | 91.6 | 84.5 | 94.7 | 93.1 | 88.6 | 94.9 | 99.8 | 104.7 | 115.7 | 110.9 | 97.6 |
| Apr. | 87.3 | 84.4 | 92.6 | 93.6 | 91.2 | 96.6 | 101.5 | 106.6 | 116.5 | 111.3 | 99.7 |
| May | 86.8 | 85.5 | 97.9 | 94.9 | 93.7 | 98.8 | 103.9 | 109.0 | 119.8 | 112.4 | 100.7 |
| June | 87.8 | 91.1 | 101.2 | 95.7 | 95.6 | 101.6 | 106.9 | 112.6 | 121.2 | 113.6 | |
| July | 87.6 | 91.1 | 101.3 | 94.9 | 96.4 | 103.1 | 106.8 | 113.1 | 120.3 | 111.3 | |
| Aug. | 88.0 | 92.9 | 101.2 | 93.3 | 95.8 | 103.6 | 107.0 | 115.2 | 121.6 | 110.2 | |
| Sept. | 85.8 | 93.6 | 100.7 | 91.5 | 96.8 | 104.8 | 106.8 | 115.9 | 119.8 | 108.2 | |
| Oct. | 88.0 | 93.8 | 99.4 | 92.7 | 98.8 | 104.6 | 106.4 | 115.7 | 120.2 | 107.8 | |
| Nov. | 87.8 | 94.9 | 98.7 | 91.3 | 96.5 | 102.7 | 104.9 | 115.1 | 117.2 | 104.6 | |
| Dec. | 85.8 | 94.9 | 95.5 | 88.7 | 95.3 | 101.5 | 104.3 | 112.9 | 112.8 | 100.6 | |
| Average | 87.7 | 88.3 | 96.6 | 92.4 | 93.0 | 99.6 | 103.4 | 110.1 | 117.1 | 109.0 | |

SYNOPSIS D'UN RAPPORT SUR L'EMPLOI ET LES REVENUS DU TRAVAIL AU CANADA, 1910-1931, PAR W. A. BERRIDGE, Ph.D. METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK.

LE CHOMAGE PARMIS LES SYNDIQUES.

Il n'existe pas au Canada de données satisfaisantes sur l'étendue du chômage, ni sur ses variations, pendant les années 1910-15; mais à la lumière de ce que l'on sait de la production industrielle et des autres conditions économiques, il est improbable que le chômage ait constitué un problème de grande importance jusqu'à la dépression de 1914-15. Des données détaillées, recueillies depuis décembre 1915 sur le chômage parmi les ouvriers syndiqués fournissent vraisemblablement des indices satisfaisants du sens des variations du chômage, bien que leur valeur soit douteuse comme mesure du véritable chômage affectant l'ensemble des travailleurs au Canada. Ces chiffres indiquent un sérieux accroissement du chômage en 1920-21 et de nouveau en 1930-31; une poussée moins importante se développa en 1924-25. Ces données sont recueillies et publiées régulièrement par l' "Employment Service" du "Department of Labor" du Dominion avec les conseils et l'assistance du Statisticien du Dominion.

TENDANCES DE LONGUES DURÉE: MINES ET MANUFACTURES.

Les données relatives aux bordereaux de salaires recueillies annuellement par les "Censuses of Manufactures and Mines" durant la décade passée au Canada ont été utilisées dans la discussion des variations de l'emploi dans ces industries.

FLUCTUATIONS D'APRÈS-GUERRE.

Les indices mensuels du nombre des travailleurs occupés, établis par le Statisticien du Dominion à partir de données détaillées, sont présentées comme d'habitude en traçant les courbes cycliques et saisonnières pour différentes catégories d'emploi au Canada. Ces courbes sont relatives à l'ensemble des industries (à l'exclusion de l'agriculture) et à différentes bran-

SYNOPSIS

ches d'industrie telles que: industries manufacturières, mines, construction, alimentation, commerce et transports. Il n'existe pas de données analogues pour l'agriculture.

REVENU EN MONNAIE ET POUVOIR D'ACHAT.

Un indice du coût de la vie basé sur les budgets ouvriers est établi au Canada en liaison avec les données annuelles concernant le revenu global en monnaie des travailleurs des industries manufacturières (montant total des bordereaux de salaires). Une simple comparaison permet ainsi de préciser les fluctuations du revenu réel (ou pouvoir d'achat en marchandises) de ce groupe de travailleurs.

SYNOPSIS DES BERICHTES ÜBER BESCHÄFTIGUNG UND ARBEITSEINKOMMEN IN KANADA, 1910-1931, DURCH W. A. BERRIDGE Ph.D., METROPOLITAN LIFE INSURANCE COMPANY NEW YORK.

ARBEITSLOSIGKEIT UNTER GEWERKSCHAFTLERN.

Ueber Ausdehnung und Veränderungen der Arbeitslosigkeit in Kanada in den Jahren 1910-1915 stehen keine Angaben zur Verfügung. Aber es ist angesichts dessen, was über die industrielle Produktion und andere ökonomische Bedingungen bekannt ist, unwahrscheinlich, dass Arbeitslosigkeit bis zur Depression von 1914-1915 ein Problem von grosser Bedeutung war. Die über Arbeitslosigkeit unter den Gewerkschafts-Mitgliedern gesammelten Muster-Angaben (ab Dezember 1915) liefern wahrscheinlich - wenn sie auch als Mass für den wirklichen Umfang der Arbeitslosigkeit unter allen Gruppen der Arbeiterschaft Kanadas von zweifelhaftem Wert sind - einen leidlich befriedigenden Index dafür, in welcher Richtung sich die Arbeitslosigkeit änderte. Diese Angaben weisen ein beträchtliches Wachstum der Arbeitslosigkeit von 1920-1921 und wieder von 1930-1931 auf. Ein gemässigeres Anwachsen der Arbeitslosigkeit zeigte sich 1924-1925. Die Data wurden laufend vom Arbeitsamt des "Dominion Departments of Labour" gesammelt und veröffentlicht unter Beratung und Beistand des Statistischen Amtes des Dominiums.

LANGZEITLICHE TENDENZEN: FABRIKATION UND BERGBAU.

Die jährlichen Lohnlisten-Aufstellungen, durch die Steuerlisten von Fabriken und Bergwerken, die etwa während des vergangenen Jahrzehnts jährlich in Kanada aufgestellt wurden, sind in der Erörterung über die Beschäftigungsveränderungen in diesen Industriezweigen verwandt.

NACHKRIEGS-SCHWANKUNGEN.

Monatliche, vom Statistischen Amt des Dominiums aus Musterangaben aufgestellte Indexzahlen über die Beschäftigung werden aufgeführt, da sie für die Darlegung des zyklischen und

SYNOPSIS

saisonmässigen Verhaltens der verschiedenen Beschäftigungsarten in Kanada von Wert sind. Diese Zahlen werden für alle zusammengefassten Industrien (mit Ausnahme der Landwirtschaft) angegeben und auch für die verschiedenartigen Bestandteile, wie Fabrikation, Bergbau, Nachrichtenwesen, Baugewerbe, Handel und Transport. Für die Landwirtschaft existieren zum Vergleich geeignete Angaben über die Beschäftigung nicht.

GELDEINKOMMEN IM VERGLEICH MIT DER KAUFKRAFT.

Ein Index über die Lebenskosten der Lohnempfänger in Kanada wird in Verbindung mit den jährlichen Steuerangaben über das gesamte Einkommen der Fabrikarbeiter (Betrag der Fabrik-Lohnlisten) benutzt, um die Schwankungen des "Realeinkommens" oder der Güterkaufkraft dieser Gruppe der Beschäftigten zu beleuchten.

INDUSTRY AND LABOUR IN CHINA BY L. K. TAO
AND S. H. LIN, INSTITUTE OF SOCIAL RESEARCH, PEIPING, CHINA

| | Page |
|--|------|
| INTRODUCTION | 72 |
| INDUSTRIAL DEVELOPMENT | |
| GENERAL | 76 |
| COAL AND IRON | 79 |
| COTTON AND SILK | 84 |
| OTHER INDUSTRIES | 91 |
| INDUSTRIAL RELATIONS | |
| GENERAL | 94 |
| WORKING CONDITIONS | 98 |
| LIVING CONDITIONS | 103 |
| CHINA AND WORLD ECONOMY PLANNING | 115 |
| ADDENDUM | |
| NOTE ON UNEMPLOYMENT | 119 |
| NOTE SUR LE CHOMAGE EN CHINE | 125 |
| BEMERKUNGEN ÜBER ARBEITSLOSIGKEIT IN CHINA | 130 |

INTRODUCTION

Modern industrial development is a comparatively recent event in the history of the Chinese people. For centuries our people have fed and clothed themselves and satisfied their other every day wants under a particular system of production which may be characterized as mainly familial in organization and handicraft in technique.

Inasmuch as the family has provided a pattern for practically every kind of organization in this country, the production of material goods, therefore, has always been carried on either in families or in establishments that are organized on the family principle. A farm, for instance, is as a rule owned by a family and cultivated by its members while a workshop or a store is usually a family concern whose employees are treated in a spirit akin to family sentiment and totally different from that of the employer-employee relationship under the present-day capitalism.

Thus, in so far as the organization of the productive units of this country is concerned, the family principle or sentiment has been all pervasive. On the other hand, as the technique of production is still at a very primitive stage, manual labour, with the assistance of very simple labour-saving implements, is all that has been needed in cultivation and manufacture. In the days when human wants are generally few and the general standard of living is uniformly low, being limited to a few things for the mere sustenance of life, it seems that agriculture and industries on the handicraft stage are sufficient to serve the purpose.

It is not possible for us to say whether the people, living under such a familial and handicraft system of economy, are really happy; nor is it possible for us to inquire whether her people would have been happier, were all natural motive power and resources in China developed and utilized to their full extent. These questions, it seems, all defy conclusive and definite answers, inasmuch as happiness of a people, unlike their material comfort which may be represented by the mileage of railways, the number of automobiles, or the per capita consumption of coal and iron, often eludes accurate measurement. At all events,

CHINA

what may be maintained for certain is that a great race has lived under such an economic system and brought forth a high and enduring form of culture extending to centuries, during which the rise and fall one after another of many a great nation has been witnessed. It is not our intention here to glorify the said economic system, still less to lament its decline and disappearance which seems to be its destined end. It has its flaws, great and almost irremedial like those in any other social or economic system, and as a consequence there have arisen serious problems such as famine, destitution, listlessness and dependence of family members, which have often taxed the minds of our people. But what seems legitimate to assert is that the system, with all its imperfections, appears to have fairly well adjusted itself to the general conditions of Chinese social life, with the result that none of the problems of the present day capitalism emerged.

Then from the beginning of the last century the remarkable industrial development of the western countries began to tell its effects on the social and economic structure of China, at first gradually but in later years with increasingly tremendous intensity. The repercussions of western industrialism manifested themselves in two ways in this country. In the first place, western industrial nations tried by all means to extend markets in China for the disposal of their manufactured goods and at the same time to scramble for raw materials which they needed for manufacture. An industrially backward China with her enormous population and her undeservedly reputed wealth of natural resources soon fell a prey to what is now known as economic imperialism of the industrial nations. When goods of foreign manufacture inundated the Chinese market, certain native handicraft industries were bound to decline and become extinct. That machine production should in time defeat handicraft work, and the capitalistic organization the familial and village economy seems to be the order in industrial evolution. A close study of the quantity and kind of articles imported to China in recent years will at once reveal the fact that her people have fallen, perhaps all quite unawares at first, under the clutches of the

INDUSTRY AND LABOR

economic imperialism of the Powers.

In the second place, industrial and commercial expansion of the western countries in China awakened among her people a sense of the importance of industrialization of their own country and a strong desire to realize it in the quickest way possible. The people of China, it has been realized, should by all means put to a stop the economic aggression of the industrial powers in their country and claim their economic independence. They should, in short, build more factories and increase the acreage of the country in order that they may be able to produce all the necessaries of life which are now brought in ever-increasing quantities from foreign lands. Over and above this, it is thought that a further attempt should be made at expanding their industries and agriculture so as to become an efficient and full-fledged member in this world of national-economic units. In other words, instead of being merely an industrially backward nation, exploited by all of the industrial powers, China is to become one of them and enter into competition with them in industries and agriculture. The insistent outcry in recent years that the Chinese should prefer Chinese goods with a view to promoting their national industry is certainly expressing a prevailing sentiment of the people.

It will be seen that industrialization in China means that the people are to ward off the aggression of foreign imperialism and to make their national an industrial and agricultural power at the same time. This two-fold burden in the reconstruction of national economy is evidently no mean task, as important factors of production, such as capital, technology, industrial equipment, supply of raw materials and so on, are lacking in this land, not to mention the time element which is all-essential to realize any social process. In view of the fact that the Chinese are not yet in a position to manufacture goods to meet their own needs, and, even if they could, to compete successfully with the well-established industries of the West, it appears therefore to be an almost impossible task to achieve the two ends at one stroke.

Yet it is evident that in spite of all difficulties the Chinese

have committed themselves definitely to industrialization to which there can be no alternative. The life and death of the nation, it is thought, hangs entirely on the success or failure of industrialization. Every effort will be directed henceforth for the promotion of national industries; no expense will be spared for the attainment of that end. While many may question the wisdom or advisability of such an ambitious scheme, yet there is hardly any doubt that it is urgent. In fact, it is not a question whether industrialization is advisable or welcome; it is for the Chinese a matter of necessity. For one quarter of the world's population cannot be contented with their present standard of living; it would be the shame of humanity if they are. And in order to raise their living standard, it would be up to them to follow the trail modern industrial powers had blazed. An industrial regime for our people, whether on capitalistic or communistic lines, appears therefore to be inevitable.

It goes without saying that such a tremendous change of the economic system from the familial-handicraft to the capitalistic-industrial, which the Chinese are determined to take upon themselves, would affect nearly every phase of the life of the people, especially the conditions of their employment. As it would be impossible for us to describe in detail the manifold changes which are happening in Chinese life, we shall in this paper deal in brevity with the problem of industrialization in China under three topics: firstly to review the industrial development of the country ever since the western method of production was introduced; secondly to point out the effects of this tremendous change on the life of the working people with reference mainly to industrial relations, and thirdly to discuss in a very broad way China's position in world economy planning in view of her present circumstances. As the field under discussion is very wide in extent and the existing statistical data concerning the subject are exceedingly fragmentary and inadequate, this paper can but be a very general survey of the subject. A more comprehensive study of the problem would require further investigations on a large scale.

INDUSTRIAL DEVELOPMENT

GENERAL.

As has been intimated, the development of industry in its modern features has only a history of not more than one hundred years in China. The Opium War in 1840 first gave the Chinese an impetus to adopt the western methods of production. Arsenal, dockyards and machinery shops were quickly established for military purposes by the government, but it was in 1878 that the first modern manufacturing plant of wool weaving was started in Kansu by Viceroy Tso Chung Tang. Since then, modern industrial enterprises such as coal mines, cotton mills, flour mills, match factories, etc. were established one after another, first through the initiative of far-sighted officials, then by the efforts of private individuals and lately under the influence of foreign capitalists. Owing to the lack of the census of production and other information of a similar nature, we shall have to be satisfied with circumstantial evidences. We may take first the increase of foreign trade which, besides being a measure of the economic relations of China and other nations, may also serve to show in a rough way the development of modern industry in this country. As shown in Table I the total value of foreign trade in the last sixty-five years increased twenty-one fold from 105 million HK Tls. in 1864, the first year of customs statistics on foreign trade in China, to 2,281 million HK Tls. in 1929. While this increase must have been hastened by the fluctuations of both commodity prices and the exchange rate of silver, yet it is remarkable that the comparatively rapid increase in the total value of China's foreign trade during the last twenty years is coincident with the long strides made by modern industries in China in the years of the Great War and later by the nationalist movement.

TABLE I. FOREIGN TRADE OF CHINA 1864-1929¹ (in thousand H.K. Tls.)

| | Net Imports | Exports | Total Trade |
|------|-------------|---------|-------------|
| 1864 | 51,294 | 54,007 | 105,300 |
| 1865 | 61,844 | 60,055 | 121,899 |

¹ Customs Reports on the Trade of China 1864-1929.

| | CHINA | | |
|------|-------------|-----------|-------------|
| | Net Imports | Exports | Total Trade |
| 1870 | 69,291 | 61,682 | 130,973 |
| 1875 | 67,803 | 68,913 | 136,716 |
| 1880 | 97,293 | 77,884 | 157,177 |
| 1885 | 88,200 | 65,006 | 153,206 |
| 1890 | 127,093 | 87,144 | 214,238 |
| 1895 | 171,697 | 143,293 | 314,990 |
| 1900 | 211,070 | 158,997 | 370,067 |
| 1905 | 447,101 | 227,888 | 674,989 |
| 1910 | 462,965 | 380,833 | 843,798 |
| 1915 | 454,476 | 418,861 | 873,337 |
| 1920 | 762,250 | 541,631 | 1,303,882 |
| 1925 | 947,865 | 776,353 | 1,724,218 |
| 1926 | 1,124,221 | 864,295 | 1,988,516 |
| 1927 | 1,012,932 | 918,620 | 1,931,551 |
| 1928 | 1,195,969 | 991,355 | 2,187,324 |
| 1929 | 1,265,779 | 1,015,687 | 2,281,466 |

The industrial progress in China will be more evident, if we examine closely the annual import of machinery and raw materials which are necessary for the development of modern industry. In the year 1913, the total value of imported machinery was only 7,947,545 HK Tls. but it was increased to 14,710,551 HK Tls. in 1919. Two years later, it was again raised to 56,295,340 HK Tls., of which 47 % were the machinery for textile industry. After 1923, the total value of textile machinery decreased while that of driving and electric machinery increased. In 1929, the latter reached the high amount of 5,972,882 HK Tls. which is about 20 percent of the total value of imported machinery. The import of raw materials for chemical industry had an increase of three times from 682,236 HK Tls. in 1903 to 20,482,000 HK Tls. in 1927. In the case of raw materials imported for match manufacturing, the total value rose from the lowest figure of 518,496 HK Tls. in 1914, to 2,857,442 HK Tls. in 1922, the highest point in the last twenty years, after which it has dropped to about 2,000,000 HK Tls. ²

Another way of showing the industrial progress of a country is

² Customs Reports on the Trade of China 1864-1929.

TABLE II. EXPORT OF CHINESE FACTORY PRODUCTS 1925-1929³ (in thousand HK Tls.)

| | 1925 | 1926 | 1927 | 1928 | 1929 |
|--|--------|--------|--------|--------|--------|
| Total Exports-Value | 32,960 | 42,073 | 57,579 | 59,797 | 49,263 |
| Flour, wheat | 1,300 | 531 | 537 | 340 | 124 |
| Cotton price goods and products (Other than yarn) . . | 8,566 | 9,811 | 14,348 | 12,669 | 13,630 |
| Cotton yarn | 3,765 | 10,338 | 18,760 | 19,974 | 14,859 |
| Clothing (chiefly socks and underclothes, silk and cotton) | 311 | 464 | 550 | 708 | 793 |
| Silk materials (other than clothing) | — | — | 144 | 1,140 | 1,866 |
| Antimony regulus | 2,336 | 4,027 | 3,556 | 2,094 | 2,726 |
| Glass, window | 16 | 134 | 242 | 179 | 48 |
| Electric lamps, electric materials and fittings | 474 | 138 | 224 | 262 | 389 |
| Soap | 90 | 160 | 238 | 266 | 260 |
| Soda ash | — | 7 | 215 | 291 | 304 |
| Matches | 117 | 15 | 14 | 554 | 122 |
| Cigarettes | 15,245 | 15,416 | 17,771 | 20,221 | 12,330 |

³ Economic Conditions in China, Department of Overseas Trade, London, p. 44.

CHINA

the statistics on the export and import of manufactured goods. The value of the Chinese factory products exported during the years 1925-29 is shown in Table II. It will be noted that the exports of some manufactured goods, such as cigarettes, cotton yarn, and cotton piece goods, made a great advance in the years 1926-28, but in 1929, on account of labour unrest and the keen competition of foreign goods, there happened a very large decrease in the export of cigarettes and cotton yarn, and consequently a sudden drop in the total value for the year.

On the other hand, the trend of the import of some manufactured goods is also illuminating. Taking cotton industry as an example, one finds that the quantity of cotton yarn and threads imported into China increased from the small figure of 33,507 piculs in 1867 to the huge total of 2,748,644 piculs in 1899, an increase of eighty-two times in the course of thirty-two years; but immediately after that year, it remained stationary and has since 1914 shown a considerable decline. In 1929 it only amounted to 234,126 piculs, the total value being 14,347,000 HK Tls. or 1.13 % of the total import. The same tendency is found in the quantity of cotton piece goods imported. In 1867, it was 4,250,324 pieces; in 1905, it reached the highest point of 35,320,762 pieces, an increase of 8.3 times. Since then it dropped gradually, sometimes interrupted by occasional increases, until in 1929 when there were 27,682,221 pieces, the total value of which was 165,297,556 HK Tls. or 13 % of the total import. Assuming that the amount of consumption has grown according to a normal trend, the change in the quantity of imports can only be explained by the growth of cotton industry in China.⁴

From what has been said above, it becomes undeniable that modern industry is growing rapidly in China, but in order to measure the rate of its growth we must turn to study in particular a few of her industries.

COAL AND IRON.

Among the most important industries in China, two basic ones should be mentioned first, namely coal and iron mining. The abundance of these two kinds of natural resources in China,

⁴ Nankai Weekly Statistical Service Vol. IV No. 14.

INDUSTRY AND LABOR

made known to the world but often exaggerated by the early explorers, has attracted the attention of industrial powers. The earliest estimate of the coal reserve made by Richthofen was 1,260,000 million tons for Shansi province alone, but it has been proved too large by later investigations. At the International Geological Conference held in Canada in 1913, two widely different estimates, being 995,587 and 39,565 million tons respectively, were proposed but neither of them had sufficient evidence to support it. Eight years later, the Chinese Geological Survey, based upon the data collected from five-years' field work, first attempted to give a minimum estimate at 23,435 million tons, but as a result of further explorations, it was raised in 1926 to 217,626 millions of tons, which figure is at present considered to be the most reliable and authoritative one. China, compared with other countries, is certainly small in her coal reserve, since she is only about the same as Great Britain, but far inferior to U. S. A. or Canada. ⁵

Coal mines had been operated by primitive methods in China for centuries before the western methods of production were introduced. At the present time there is still a great number of mines operated in the old way, whose total production of coal has been estimated to be from six to seven million tons a year. Based upon this estimate for the native mines together with the annual reports of some modern mines, the Geological Survey has made the following estimates of the annual production of coal in China for the years from 1913 to 1928.

TABLE III. ANNUAL PRODUCTION OF COAL IN CHINA 1913-1928⁶

| (in thousand tons) | | | |
|--------------------|---------------|------|---------------|
| Year | Annual output | Year | Annual output |
| 1913 | 14,000 | 1921 | 20,459 |
| 1914 | 15,000 | 1922 | 21,097 |
| 1915 | 15,440 | 1923 | 24,552 |
| 1916 | 15,584 | 1924 | 25,780 |
| 1917 | 17,205 | 1925 | 24,255 |
| 1918 | 18,339 | 1926 | 23,040 |
| 1919 | 20,054 | 1927 | 24,172 |
| 1920 | 21,259 | 1928 | 25,091 |

TABLE IV.

ANNUAL PRODUCTION OF COAL IN CHINA 1926-28⁷

| | 1926 | | 1927 | | 1928 | |
|--|---------------|---------|---------------|---------|---------------|---------|
| | Production | Percent | Production | Percent | Production | Percent |
| | thousand tons | | thousand tons | | thousand tons | |
| Modern Mines operated with foreign capital . . | 12,017 | 52.2 | 13,450 | 55.7 | 14,117 | 56.3 |
| Modern Mines operated with Chinese capital . . | 3,345 | 14.5 | 2,983 | 12.3 | 3,169 | 12.6 |
| Chinese Mines operated primitive methods . . | 7,678 | 33.3 | 7,739 | 32.0 | 7,805 | 31.1 |
| Total . . . | 23,040 | 100.0 | 24,172 | 100.0 | 25,091 | 100.0 |

⁵ General Statement on the Mining Industry in China Vol. II pp. 13-14.⁶ China Yearbook 1928 p. 78; General Statement on the Mining Industry in China Vol. III pp. 227-8.⁷ General Statement on the Mining Industry in China Vol. III p. 230.

INDUSTRY AND LABOR

From the foregoing figures, it may be noticed that the annual output of coal has been almost doubled in the last sixteen years. The increase is chiefly due to the development of some large mines, and it is noteworthy that among them those operated with foreign capital and by foreign control are far more predominant. For the years 1926-1928, as shown in Table IV, there was a steady growth in the production of foreign-owned coal mines of which the Kailan and the Fushun coal mines are the most important. These two foreign enterprises produce about 40 % of the total coal output of China. If we leave out the small mines operated by primitive methods which are bound to close down in the future, the small proportion of Chinese-owned modern mines in the total production of coal is especially worthy of attention. It may be said that coal mines in China operated by modern methods are now almost entirely under the control of foreign capitalists.⁷

It is generally recognized that the iron deposit of China is not so rich as coal, though opinions also differ on this point. Dr. F. R. Tegengren, has estimated the deposit of the iron ore in China at 951.7 million tons which, to use his own words, is "no doubt a very high figure for China". His estimate, however, was later raised to 979 million tons by the Chinese Geological Survey, which made several new discoveries in recent years.⁸

Although the manufacturing of iron and steel by primitive methods may be said to have been started in China as early as 700 B. C., yet the modern methods of iron manufacturing were first introduced only about forty years ago when Viceroy Chang Chih-Tung built an iron works in Hanyang, Hupei. Since then, several iron and steel works have been established in different provinces, but it should be borne in mind that most of them are more or less connected with Japanese enterprises. It has been reported by the Chinese Geological Survey that out of the total iron reserve in China, 82 % or about 804 million tons are now in the hands of Japanese.⁹ Thus, poor and inadequate as the iron deposit of China is, it is still operated and controlled by

⁷ Ibid Vol. III p. 293.

⁹ Ibid Vol. III p. 296.

TABLE V.

PRODUCTION, IMPORTS, AND EXPORTS OF IRON ORE, PIG IRON & STEEL IN CHINA (in thousand metric tons)¹⁰

| | Iron Ore ¹ | | | Pig Iron and Steel | | | |
|------|-----------------------|--------|--------------|-------------------------------------|-----------------|--------|--------|
| | Production | Export | Import | Production Pig Iron ² | Steel | Export | Import |
| 1912 | 721 | 203 | ² | 178 | 3 | 12 | 151 |
| 1913 | 960 | 272 | ² | 268 | 43 | 67 | 245 |
| 1914 | 1,005 | 297 | 11 | 300 | 56 | 62 | 231 |
| 1915 | 1,096 | 307 | 5 | 336 | 48 | 102 | 126 |
| 1916 | 1,129 | 281 | 30 | 369 | 45 | 155 | 146 |
| 1917 | 1,140 | 307 | 28 | 358 | 43 | 163 | 123 |
| 1918 | 1,475 | 376 | 15 | 354 | 57 ⁴ | 189 | 149 |
| 1919 | 1,861 | 635 | 37 | 447 | 35 ⁴ | 166 | 325 |
| 1920 | 1,866 | 678 | 20 | 428 | 68 ⁴ | 197 | 367 |
| 1921 | 1,463 | 511 | 6 | 403 | 77 ⁴ | 163 | 273 |
| 1922 | 1,559 | 667 | 1 | 394 | 30 ⁴ | 210 | 365 |
| 1923 | 1,733 | 734 | 3 | 343 | 30 ⁴ | 214 | 310 |
| 1924 | 1,766 | 847 | 2 | 331 | 30 ⁴ | 670 | 494 |
| 1925 | 1,519 | 816 | — | 370 | 30 ⁴ | 161 | 405 |

¹ Annual production of iron ore in native mines assumed to be 500,000 tons.² Less than thousand tons.³ Production of pig iron in native mines assumed to be 170,000 tons a year.⁴ Including also the production of Wu Hsing and other electric furnaces which is assumed to be about 30,000 tons a year.¹⁰ Ibid Vol. II, Table 14.

INDUSTRY AND LABOR

foreign capitalists whose interest is not necessarily identical with that of the Chinese. This fact undoubtedly has a decided significance upon the future of industrial development of China. The annual output of iron ore in China is now about one and a half million tons, of which nearly 80 % is exported to Japan. In Table V the production, imports and exports of iron ore, pig iron, and steel are given for the years 1912 to 1925. It will be observed in the table that while the import of iron and steel is much greater than the export, the export of iron ore is much greater than its import. One may perhaps conclude from this that while China's need for wrought iron and steel becomes greater from year to year, she has still to export to Japan a great quantity of the iron ore she produces every year.

COTTON AND SILK.

After coal and iron mining, Chinese industries that deserve our notice are cotton and silk. China, reputed to be the third greatest nation in the growing of cotton, is naturally fitted for developing her cotton industries. And as a matter of fact, the first factory industry that has made a great success and is destined to stay in this country is cotton spinning and weaving. The first cotton mill was established in Shanghai in 1888 by the famous Viceroy Li Hung Chang with 65,000 spindles and 600 looms. Later a few mills were organized either under semi-official auspices or by private individuals, while, after the conclusion of the Treaty of Shimonoseki with Japan, foreign mills were also allowed to operate in the treaty ports. In 1896, there were in China 13 cotton mills, of which five were owned by foreigners. From that year onward, cotton industry grew with rapidity in China, as is shown in Table VI.¹¹

But the most remarkable phenomenon in the development of cotton industry in China is that it has made the biggest strides during and after the Great War. The War years certainly furnished a golden opportunity to Chinese industrialists. For during that period, the industrial powers, being busily engaged in war industries, were no more in a position to adopt the usual means, such as dumping, to kill the industries the Chinese began to promote. Were it not for the political strife and military

TABLE VI. CROWTH OF THE COTTON MILLS IN CHINA DURING LAST 35 YEARS¹¹

| Year | No. of mills | | | Number of spindles | | | Average No. of spindles per mill | |
|------|--------------|---------|-------|--------------------|---------|-----------|----------------------------------|---------|
| | Chinese | Foreign | Total | Chinese | Foreign | Total | Chinese | Foreign |
| 1896 | 8 | 5 | 13 | 225,267 | 204,342 | 429,609 | 28,000 | 40,000 |
| 1906 | 17 | 5 | 22 | 426,767 | 214,347 | 641,114 | 25,000 | 43,000 |
| 1916 | 30 | 11 | 41 | 721,105 | 400,146 | 1,121,251 | 24,000 | 36,500 |
| 1925 | 76 | 37 | 113 | 1,600,000 | 890,000 | 2,490,000 | 21,000 | 25,000 |
| 1930 | 81 | 46 | 127 | 2,326,872 | 642,680 | 2,979,552 | 28,727 | 35,710 |

¹¹ Chinese Economic Journal Vol. II no. 5 p. 1197.

INDUSTRY AND LABOR

activities which happened in China during that period, many more industries would have been founded with a great measure of success. If that opportunity was unfortunately missed by the Chinese, the number of the cotton mills at any rate had increased from 41 in 1916 to 113 in 1925. According to the figures given by the League of Nations in 1927 the total number of cotton spindles in China increased in thirteen years (from 1913 to 1926) 340.9 percent. The increase of cotton spindles and looms in China is reflected by the adverse effect it has on the import of cotton yarn and piece goods to China; from 1913 to 1924, the excess of imports over exports of yarn was reduced from 162.2 to 24.6 thousand tons and that of piece goods from 180.6 to 127.3 thousand tons.¹²

Now if the cotton industry has already succeeded in establishing itself in China, its production is nevertheless far from being important when compared with that of the world. If the figures published by the International Cotton Federation for the year 1930 are to be relied upon, China has only 3,699 thousand spindles as against the world's total of 165,063 thousand spindles. It will be observed that China's figure is already much higher than that obtained in the foregoing table on the authority of the Chinese Millowner's Association and even then it is only little more than 2.2 percent of the total number of spindles of the world!¹³

One important fact in the development of the cotton industry in China to which our attention should be drawn is the rôle of foreign capitalists and entrepreneurs. The number of foreign-owned mills, it will be observed from the foregoing table, has increased threefold from 1916 to 1930 while the average number of spindles per mill is greater in foreign-owned than in Chinese-owned mills. Since the Chinese Government began to pursue in 1918 the policy of differential tariff rates for different grades of cotton yarn, Japanese cotton merchants, instead of importing manufactured yarn into China, began in earnest to operate cotton mills in Chinese territory. Indeed, foreign-owned mills

¹² Memorandum on Cotton, League of Nations, pp. 8, 31.

¹³ Complete List of Cotton Mills in China, 1930, published by the Chinese Millowners Association.

CHINA

are less in number than Chinese-owned mills but the amount of capital invested in the factories of the former are much greater. Thus, according to the figures given by the Chinese Millowners' Association in 1930, the total capitalization in Chinese dollars and taels and Japanese yen of the 118 mills that have reported the amount of capital is as follows:

| | | | |
|----------|--------------|-----------------|-----------------|
| Chinese | \$80,956,900 | Tls. 31,182,380 | |
| Japanese | — | Tls. 36,000,000 | Yen 211,880,000 |
| English | — | Tls. 5,400,000 | — |

It will be seen that the total amount invested by the Chinese and Japanese investments, if calculated at the present exchange rate, being only one to four dollars.¹⁴ It has been said that if Shanghai alone be considered, the Japanese have nearly five times more capital invested in the cotton industry than the Chinese.¹⁵

It is evident from a study of the figures that Japanese interests predominate the cotton industry of China and it naturally follows that it is the Japanese that get a lion's share out of whatever profits the industry yields. The Japanese very often not only excel the Chinese in management and technique, but also in having better organization among the textile manufacturers and easy financial and shipping facilities which enable them to dominate the cotton market. Furthermore, most of the Japanese mills have the additional advantage of being branches of the big cotton manufacturing enterprises in Japan, wherefrom capital may be mobilized in abundance. Competition between the Chinese and the Japanese mills is becoming keen but it seems that instead of remaining stationary, Japanese interests in the cotton industry of China will make still greater progress in the future. Thus it has been reported that in the new cotton mills to be organized this year, there will be 130,000 spindles and 3,000 looms to the Japanese and only 50,000 spindles and 245 looms to the Chinese.¹⁶

There is no doubt that the cotton industry is growing rapidly in

¹⁴ *Ibid.*

¹⁵ *Rf. D. K. Lieu: China's Cotton Industry.*

¹⁶ *Chinese Economic Journal Vol. VII, No. 5, p. 1202.*

INDUSTRY AND LABOR

China but it is no less than the expansion of Japanese manufacturing interests in the country.

Next to cotton comes the silk reeling industry. The first modern silk filature was established in Kwangtung in 1866. An Italian steam filature was established at Shanghai in 1880 and this was followed by a Chinese filature in the next year. Since then, more filatures were organized in central and south China and the number of steam filatures has increased by leaps and bounds. For instance, Kwangtung, having only 10 filatures with 2,400 basins in 1880, claims to have 109 filatures with 42,100 basins in 1912. The growth of the industry in Kwangtung since that year may be seen from the following:¹⁷

| Year | Number of Filatures | Number of Basins |
|------|---------------------|------------------|
| 1912 | 109 | 42,100 |
| 1918 | 147 | 72,200 |
| 1922 | 180 | 90,064 |
| 1926 | 202 | 95,215 |

The progress of the industry in central China is also striking, especially in the period from 1915 to 1926. Shanghai has been prominent in the silk industry and remains its most important centre to this day. The number of silk filatures in Shanghai increased from 5 in 1890 to 56 in 1915, but since that year there has appeared a tendency to establish silk filatures in places other than Shanghai. The following table shows the growth of silk reeling industry in central China in the last fifteen years.¹⁸ Besides the places mentioned, Szechwan is also a silk producing centre in China. For the last decade or so, the yearly export of raw silk from Chungking and Ichang totalled 10,000 piculs, consisting mainly of hand-reeled yellow silk with a small quantity of white silk and filature products. In 1927 there were in that province 25 steam filatures of which 20 had 2,318 reeling frames.¹⁹ Among other places, Shantung had five filatures

¹⁷ Guide to Foreign Trade (in Chinese) Vol. I No. 7 "Silk Industry in China", p. 8.

¹⁸ Chinese Economic Journal Vol. II No. 6, p. 16; Guide to Foreign Trade Vol. II No.1 "Silk Industry in China During Last Twenty Years".

¹⁹ The Chien Yeh Monthly (in Chinese) Nov. 1927. "Silk Industry in Szechwan".

CHINA

employing 1,100 hands in 1926, Hupeh four filatures with 930 reeling frames in 1925, and Hunan one filature at Changsha in 1925²⁰

The size of filatures differs in different provinces but the capital invested in a silk filature is usually not very large. Out of the 82 steam filatures in Shanghai in 1926, 57 employed a total capital of 1,791,000 taels or an average of 31,400 taels per filature.²¹

Unlike the cotton mills, silk filatures in China are all owned by Chinese, but it is noteworthy that foreigners have a great control over the export of raw silk. Although the number of steam filatures has increased in the last twenty years, the export of raw silk, on the contrary, has suffered a large decrease owing to various causes, but in particular to the competition of Japanese silk. In the short period of six years from 1922 to 1928, the total quantity of Japanese silk imported into U. S. A. increased from 319,147 bales to 509,147 bales while that of Chinese silk decreased from 69,350 bales to 53,148 bales.²²

The statistics for the last sixty years, as shown in Table VIII indicate clearly that the percentage of raw silk in the total amount of export has diminished enormously since 1909, while

TABLE VIII. TOTAL EXPORT OF RAW SILK FROM CHINA 1869-1928²³

| Year | Piculs | K.K. Tls. | As % of total amount of export |
|------|---------|-------------|--------------------------------|
| 1869 | 48,483 | 19,582,842 | 32.4 |
| 1879 | 80,744 | 23,005,947 | 31.8 |
| 1889 | 92,756 | 24,801,262 | 25.5 |
| 1899 | 148,100 | 65,245,456 | 33.3 |
| 1909 | 129,784 | 64,028,891 | 18.9 |
| 1919 | 165,187 | 102,548,888 | 16.3 |
| 1929 | 189,980 | 147,681,338 | 14.5 |

²⁰ Chinese Economic Monthly, April 1925, pp. 35-36, December 1926, p. 12

²¹ According to a report made by the Steam Filatures and Cocoon Guild in 1926.

²² Guide to Foreign Trade Vol. I, No. 1. "A Statistical Review of the Silk Trade in China.

TABLE VII. GROWTH OF THE SILK FILATURES IN CENTRAL CHINA 1915-1930¹⁸

| Year | Shanghai | | Wusih | | Other places | | Total | |
|------|-----------|--------|-----------|--------|--------------|--------|-----------|--------|
| | Filatures | Basins | Filatures | Basins | Filatures | Basins | Filatures | Basins |
| 1915 | 56 | 14,424 | 8 | 2,118 | 8 | 1,768 | 72 | 28,310 |
| 1920 | 63 | 18,146 | 14 | 3,856 | 10 | 2,244 | 87 | 22,246 |
| 1925 | 75 | 18,298 | 17 | 5,208 | 12 | 2,670 | 104 | 26,182 |
| 1930 | 104 | 25,096 | 48 | 14,732 | 33 | 8,332 | 186 | 48,070 |

CHINA

the absolute amount of raw silk exported has shown only a slight increase of 40 thousand piculs in the last thirty years.²³ For the last few years, silk steam filatures in China have been working under the burden of a high cost of production. Cocoon prices have been too high and the cost of labour has been steadily on the increase with the result that last year the selling price was below cost and many filatures found themselves in a very precarious position. The total number of silk filatures in Kwangtung diminished to 146 filatures with 72,055 basins in 1929 and again to 121 filatures with 62,292 basins in 1930. As a consequence over nine thousand workers became unemployed.²⁴ In Shanghai, at the end of last year, almost all the filatures were forced to close down and left more than 30 thousand workers unemployed.²⁵ The silk filatures in Shanghai, however, have resumed their work this year, but the prospects of the industry are still far from being bright.

OTHER INDUSTRIES.

Besides the textile industry, other factory industries that may be mentioned are oil-pressing, electric power, wheat-flour and matches. In the year 1928, China had 283 oil mills, 231 electric light and power plants, 193 flour mills, and 189 match factories.²⁶ Oil and flour mills are centered chiefly in the Three Eastern Provinces (Manchuria) and Kiangsu, while electric plants and match factories are scattered throughout the whole country. The former two industries, being mainly old workshops equipped with modern machinery, were developed to a great extent during the Great War, but they have declined considerably in recent years. The first flour mill of China was founded in Shanghai in 1896 by a German merchant, who sold it later to the Mitsui Company of Japan, but 110 of the 176 mills in 1928 were established in the period from 1910 to 1920. The total amount

²³ Ibid. Vol. I, Nos. 1, 7.

²⁴ The Statistical Journal of Kwangtung, Vol. I, Nos. 4, 5. Silk Filatures in Kwangtung.

²⁵ Guide to Foreign Trade Vol. I, No. 8, News p. 2.

²⁶ Ho and Fong: Extent and Effects of Industrialization in China, Nankai University, Tientsin, 1929, pp. 20-26.

INDUSTRY AND LABOR

of capital invested in the 165 mills for which data were available is approximately 60,000,000 dollars, that is, the average amount of capital per mill is 363,636 dollars. The flour milling industry in China has been facing a very difficult situation. Wheat prices, owing to political instability and bad crops in recent years, have been so high that the flour produced at home cannot compete with the imported flour from Canada or U. S. A. The total value of imported flour has increased from fifteen million HK Tls. in 1925 to sixty three million HK Tls. in 1929. Consequently, the total number of flour mills in China dropped to 123 in 1929 and again to 105 in 1930.²⁷ The decline of the flour industry in China is indeed surprising.

The situation of the oil pressing industry, too, suffered a decline in the meantime. The total value of bean oil exported from China dropped from 20 million HK Tls. in 1925 to 12 million HK Tls. in 1929 but that of soya beans increased in the same period from 121 to 217 million HK Tls. It seems therefore that oil pressing industry is now shifted from China to Japan and those countries where bean oil is on great demand.²⁸

The manufacture of matches, an infant chemical industry, had, as has been mentioned, also its flourishing period during the World War. In the years 1912-1923, there happened an increase in the import of raw materials for match manufacture, but an enormous decrease in the quantity of imported matches from 30,090,020 gross in 1912 to 2,241,126 gross in 1923. After this year, however, the import of matches gradually gained until in 1929 it was 8,423,953 gross. It appears that match manufacture in China is in a very precarious position. Whether it will stay is still a question. On the one hand, it has to rely for the supply of its raw materials on other countries and on the other hand its very existence is threatened by the great match trust which is endeavouring to get under its control the match factories of all countries.²⁹

Turning to the electric light and power plants in China, one finds that it has shown a steady growth in recent years. The

²⁷ Guide to Foreign Trade Vol. I, Nos. 5, 8.

²⁸ Customs Reports 1925-1929.

²⁹ Ibid. 1912-1929.

CHINA

electric plants increased from 219 in 1924 to 231 in 1928. According to the latest statistics made public by the Bureau of Statistics, there were in 1929 altogether 499 electric light and power plants with 614,860 kilowatts, of which 425 or 85 % were plants under 1,000 K.W., 59 or 12 % between 1,000 and 10,000 K.W. and 15 or 3 % above 10,000 K.W. In respect of their nature, these 499 plants are distributed as follows:

| | Plants | K.W. |
|-------------------------------------|--------|---------|
| Municipal Light and Power | 418 | 380,671 |
| Cotton mills | 40 | 121,141 |
| Mines | 9 | 108,014 |
| 32 others factories | 32 | 5,024 |
| All plants | 499 | 614,860 |

It is hardly necessary to say that the use of electricity is very unequally distributed in the whole country. Thus, the province of Kiangsu claims to have as much as 42.2 % of the total power capacity of the country, while the provinces of Liaoning, Hopei and Kwangtung, together had 37.6 percent. In the remaining provinces, the power capacity was either less than 5 percent or none.³⁰

³⁰ Nankai Weekly Statistical Service, Vol. IV, No. 13.

INDUSTRIAL RELATIONS

INDUSTRIAL POPULATION.

General. Having dealt with the modern industries of this country, let us now turn to review briefly the general conditions under which our labourers work.

The question that is of the first importance to an understanding of the human element in the development of industries in China is undoubtedly the number of her industrial workers in relation to the total population. It is unfortunate that as yet no population census in its proper sense has been taken in China. The figures for the industrial population of the past years, too, are either incomplete or inconsistent with one another. At any rate what is known for certain is that the number of workers has grown in recent years concomitantly with the increase of the number of factories and workshops. Thus, the statistics compiled by the former Ministry of Agriculture and Commerce from 1912 to 1920, though it is defective in many respects, shows at least one remarkable tendency, viz., the rapid increase of textile workers during the period,³¹ that is evidently proven to be true by other corroborating facts. The same tendency in the textile population continues in more remarkable proportions in recent years.³²

Now if the number of factory workers has grown in recent years, it would be of interest to inquire into the total factory population at the present time. Estimates on this point are often diverse, although they are all between one and one and a half million.³³ But according to a recent investigation made by the Ministry of Industry, Commerce and Labour, there are in the year of 1930 1,204,318 industrial workers in 29 cities which are located

³¹ Annual Statistical Reports, Ministry of Agriculture and Commerce, 1912-1920.

³² According to the reports of the Chinese Millowners' Association, the total number of workers in cotton industry increased from 209,759 in 1926 to 252,032 in 1930.

³³ The earliest estimate for the factory workers in China was 1,260,000, but in the Workers' Review, 1923, a slightly bigger figure of 1,445,000 was given. In Current History of July 1929, Mr. Wilbur Burton remarked that there were only 1,000,000 factory workers in China.

CHINA

in nine different provinces.³⁴ The investigation is decidedly a partial one, while most of the industrially developed cities of the country were included in the investigation, there are still in the interior or country districts many factories of a more or less modern type whose working population must be considerably large and can by no means be disregarded in the investigation. It is the opinion of the writers that there are at present in China at least two and a half million industrial workers who make their living in factories. Parenthetically, it may be added that the amount of mining labour in China has been recently estimated at 2,289,000 of which 2,080,850 or 90.9 percent belong to the non-metal mines and 208,150 or 9.1 percent belong to the metal mines.³⁵

The total working population of China is undoubtedly small in comparison with that in any of the industrial powers. Nevertheless, its number will certainly grow in the course of time, provided that all circumstances favour industrial development in the country.

The distribution of age and sex among the Chinese working population cannot be ascertained. But the few fragmentary data on woman and child labour, which are mentioned below, may serve to show the deplorable but often inevitable fact that women and children are exploited in the early stages of the industrial development of a nation. According to the annual reports of the former Ministry of Agriculture and Commerce, the percentage of woman workers in the years 1912 to 1920 fluctuated from 33.7 to 41.7 of the total and 84.1 per cent of the 167,367³⁶ factory woman workers in 1920 were engaged in textiles. It should be pointed out that cotton and silk industries as a rule claim the highest percentage of woman workers. In Shanghai and Wusih, where the two industries flourish, the percentage of woman workers has been estimated to be as high as 57 and 71 respectively.³⁷

³⁴ Number of Workers, Wages, and Working Hours in Industrial Towns. Ministry of Industry, Commerce, and Labour, 1930.

³⁵ Chinese Economical Journal Vol. II, No. 1, p. 782.

³⁶ Annual Statistical Reports, Ministry of Agriculture and Commerce, 1912-1920.

³⁷ Nankai Weekly Statistical Service, Vol. III, Nos. 29, 50.

INDUSTRY AND LABOR

It is impossible to say how many children there are in China working in factories. The Social Affairs Bureau of Tientsin has reported that out of a total of 47,519 workers in Tientsin, 9,730 were child workers under 16 years of age.³⁸ The figure for child workers under 12 years of age in Shanghai was given by the Child Labour Commission in 1924 as 21,900.³⁹ But this estimated figure is generally regarded as too low for Shanghai, as it did not take into account certain large factories in the International Settlement and any of the factories in the French Concession. But it is remarkable that a recent estimate of child labourers in Shanghai given by the Bureau of Social Affairs approximates this figure, which was 20,135 out of the total working population of 221,446, that is 9 per cent.⁴⁰

It has been estimated on the basis of a recent investigation of industrial workers in 29 cities in nine provinces in 1930 made by the Ministry of Industry, Commerce and Labour that there were 448,038 or 46 % male workers, 449,578 or 47 % female workers and 67,377 or 7 % child workers. The percentage of woman and child workers, as might be expected, fluctuated with the type of industry, as for instance, female workers constituted as much as 67 % in the textile industry but dropped to only 1 % in the building trades.⁴¹ The investigation referred to above can hardly be said to be complete but the proportion of the male, female and child workers it revealed may be said to be not far from the actuality. Generally speaking, it may be maintained that in those places where industries are developed to some extent, female workers constitute from 40 to 45 per cent and child workers constitute from 5 to 10 per cent of the total factory working population, but in those places where handicraft industry is still predominant, female workers are comparatively few but juveniles between 12 and 18 are considerably employed. It seems that so long as the laws forbidding the unfair employment

³⁸ Annual Report of the Bureau of Social Affairs, Tientsin, 1929, p. 564.

³⁹ M. Thomas Tchou: *Housing and Social Conditions among Industrial Workers in Shanghai*, p. 2.

⁴⁰ *Industries in Shanghai*, (in Chinese) Bureau of Social Affairs, Shanghai, 1929.

⁴¹ Nankai Weekly Statistical Service, Vol. IV., No. 9.

of women and children in schooling age cannot be properly enforced in view of the general low level of living and the laxity in administration, the two classes of workers, it seems, will have to be victims in the early stages of industrial development in China.

U n e m p l o y m e n t.

The increase of factories and factory workers is naturally followed by the serious problem of unemployment. China, it is true, has not yet been completely industrialized and consequently her unemployment problem cannot be of the nature which characterizes it in industrialized nations. Indeed, the majority of her unemployment may be not due so much to world depression, technological progress or monetary system, which is usually alleged to account for the unemployment in the West, as to the peculiar conditions in her social, economic, and political system. Broadly speaking, four kinds of unemployment may be distinguished in China. Firstly, thousands of handicraft workers have been thrown out of employment, owing to the introduction of labour saving machines. Secondly, the tendency that male workers have been gradually displaced by women and children is noticeable, in particular in the textile trades. Thirdly, natural catastrophes and political disturbances in recent years must have made farmers, artisans and factory workers in great numbers jobless. Lastly, owing to the general slump in trade which forced the closing down of many of the recently developed industrial establishments in China, there has undoubtedly been created a sharp decline in employment. On the whole, it may not be too presumptuous to maintain that the general unrest in the country is but a manifestation of our serious unemployment situation. Who but the jobless would join the army and become a soldier who in many cases is only inadequately paid and has by no means an easy life? Who but the jobless is driven to become the hirelings of communists and forms the greater bulk of their motley regiments? Who indeed but the jobless would always look out for change and disturbance so that they might fish out something in troubled waters? It appears that once the general social and economic conditions of the country are

INDUSTRY AND LABOR

surveyed, it will be readily seen that her unemployment problem is inextricably involved in them.

As there exists no machinery of a nation-wide scale in this country for the keeping of unemployment records, which in itself is by no means an easy task, only a few data have been collected by various municipal authorities. But as they are incomplete and often misleading, we shall refrain from citing them in this paper.

WORKING CONDITIONS.

Working Hours. The introduction of the modern factory in China has brought with it the question of long working hours. It is a common practice now among leading factories in China, such as cotton, silk, tobacco, match works, to adopt the two shifts system under which the labourers on the day shift usually work twelve hours from six o'clock in the morning to six o'clock in the evening and those on the night shift work another twelve hours up to six o'clock the next morning. The shifts are generally interchanged on Sunday on which there is only a night shift, but no day shift. Thus, there are 6 day shifts and 7 night shifts a week. To this general practice, however, there are several exceptions. On the one hand, in small factories or handicraft workshops equipped with machines, workers are often required to work longer hours, from 13 to 15 hours. On the other hand, in some progressive factories such as the Commercial Press in Shanghai, the Chiu Ta Salt Refinery in Tangku, the Pao Cheng Cotton Mill in Tientsin, the system of three shifts of eight hours each has been adopted and a great number of workers are now working only eight hours a day. Besides, in a large number of factories like the foundry, ship-building, machines shops, etc. a ten hours day often prevails. The Bureau of Social Affairs of Shanghai, in its study of Shanghai industries, gave the maximum, minimum, and ordinary working hours for different industries in a long table, according to which the working hours in Shanghai varied from 7 to 14 hours a day. The 12 hours day was the standard in the cotton industry while the ten hours day was quite common in the chemical and food industries; in a certain number of factories the nine hours day was adopted.⁴²

⁴² Industries in Shanghai, 1929.

In Tientsin and Hankow, it appears that the maximum number of working hours per day was 14, while the minimum was 8. A twelve hours day, again, was the most universal in the cotton industry.⁴³ An official survey of Peiping indicated that out of 115 factories investigated, 88 or 14 % of the total worked 12 hours a day.⁴⁴ In the Three Eastern Provinces (Manchuria), according to the statistics of Japanese factories in those regions in 1925, the average number of working hours was 10, while only sixteen factories adopted the eight hours day.⁴⁵ Taking China as a whole, the twelve hours day is prevailing at present, but there has already appeared a tendency to reduce it to ten hours. Wherever the night shift is adopted, the three shifts system of eight hours each seems to gain ground.

Except the rest of the day when the day and night shifts are interchanged, the workers usually have one holiday on October 10th, the Chinese National Holiday, three to seven holidays during the Chinese New Year, one or a half day at some other festivals. As the National Government has taken every measure to forbid the celebration of old festivals, especially the Chinese New Year, there is now a great deal of confusion and dispute on the fixing of holidays. Sunday rest is as a rule not observed, except in some modern factories. But a large number of employers, following the example of Japanese manufacturers, now grant one day of rest to the workers every fifteen days. Formerly, no break was allowed for meals, the workers having to take their meals while working. This practice, however, has been recently broken down in Shanghai and other industrial centres, and a spell of half an hour at noon time is usually granted. To a considerably large number of workers who live from hand to mouth, rest days are in fact not so welcome as the leisured class suppose, because rest means no work and consequently no income. Workers in modern factories, especially those in cotton mills and silk filatures, are generally paid at piece work rate which is generally fixed very low in order to speed up. In this

⁴³ Cf. Annual Report of the Bureau of Social Affairs, Tientsin, 1929. p. 564. The Social Affairs Monthly, Hankow, Sept. 1929.

⁴⁴ Fang Fu-an: Chinese Labour, 1931, p. 36.

⁴⁵ The Chinese Labour Yearbook, Institute of Social Research, 1928. pp. 305-6.

INDUSTRY AND LABOR

connection it may be observed that employers, with a view to reducing labour costs, often try to increase the employment of women and children, who, being not responsible for supporting families may be paid at a lower rate. It seems that so long as this system of piece work persists, the workers under the present circumstances cannot but prefer long working hours to starvation.

Accidents. It is evident that long working hours, apart from their detrimental effects on the health of the worker, often lead to an increase of accidents in factories. It was reported in 1924 that 374 or 42 % of the 880 cotton workers treated in the Industrial Hospital at Yangtsepoo, a factory district in Shanghai, were cases of industrial accidents, of which 231 were men, 43 were women and 100 were children from 5 to 15 years of age. The percentages of permanent disability and death on the total number of accidents were as follows:

| Permanent disability | | Death | |
|----------------------|------|-----------|--------|
| Men | 20 % | | 1.7 % |
| Women | 44 % | less than | 0.05 % |
| Children | 29 % | | 3.0 % |
| All workers | 25 % | | 1.8 % |

It is worthy of attention that it is the children that are most liable to industrial accidents; they had the highest accident mortality and their percentage of permanent disability was 9 per cent higher than that of men. The fact that women had 44 per cent of cases of permanent disability was due to the special work in weaving, in which the sharp-pointed instrument was liable to pierce many a woman worker's eye, always resulting in a partial or total loss of sight.⁴⁶

According to a study made in 1928 of 18,890 workers in 26 establishments in Shanghai, there were 80 fatal, 972 non-fatal and 1,007 totally injured cases, in which, it should be noted, many accidents were omitted. Assuming that there are 300 working days in a year and 10 working hours in a day, it was calculated that the frequency and the severity rates of accidents

⁴⁶ The China Medical Journal, March 1924.

CHINA

for China would be 18.19 and 13.03 respectively. It was further estimated that China would have about ten thousand accidents annually in cotton industry alone and out of the total, about 25 % or 2,500 workers, men, women, or children, would be injured and permanently disabled. These estimates are necessarily very crude, but, it is maintained that they are in all probability quite low.⁴⁷

As to the mining industry, the data furnished by the Geological Survey show that for the period 1902-1904 there were 26,044 non-fatal and 853 fatal cases in Penchihu Coal Mines and 649 accidents in Fushun Coal Mines. It was further reported by the Survey that the number of both fatal and non-fatal accidents, in eighteen comparatively large mines for the years 1925 to 1928 amounted to about 20 thousand cases.⁴⁸ Since minor accidents are generally not reported and the number of accidents in other mines is unknown, the total number of mining accidents that occur every year in China must be very large. It is evident that in view of the progress of industrialization in China, the prevention of industrial accidents has already become one of the most urgent problems to be solved.

The Contract Labour System. One special feature in the industrial relations in China is the system of contract labour. This time honoured system may be said to prevail very widely in the Chinese labour market, in particular in the employment of mining labour. Under the system, the employer of a mine or a factory employs and pays his men through a contractor whose business is on the one hand to maintain a constant supply of labour required by the employer and on the other hand to deal with the workers individually with regard to their work and pay. The contractor is at the same time the recruiting officer, the inspector, the foreman and the pay-master of labourers and if he contracts for the amount of work done, he is also in a way the engineer. Under the system, the employer simply pays a total sum for the amount of work done

⁴⁷ The China Weekly Review, February 1st., 1930.

⁴⁸ General Statement on the Mining Industry in China, Vol. II, pp. 71-72; Vol. III, pp. 253-254.

INDUSTRY AND LABOR

or for the amount of labour required in the work and is therefore free from all such bother as selecting labourers, inspecting their work and looking after their health. In short, by having one or more contractors in the employ, the employer finds his duties with regard to labour reduced to a minimum. Apparently this is all to the advantage of the employer, if the contractors in his employ are all faithful servants to him, but it is evident that the contractor usually represents neither capital nor labour but forms a *sui generis*. Now if the contractor system is far from being beneficial to the employer, it is much more detrimental to the employee. For whatever may be the scale of wages of the labourers fixed by arrangement between the employer and the contractor, the latter is to deduce a certain percentage, usually 10 % but sometimes as high as 20 % or more, from the payment made to the labourer. If meals are provided for the labourer by the contractor, a further deduction of the wages from 30 to 50 per cent is made. If we add to this other sums often advanced very liberally by the contractor, in the form of debts and charged with a high rate of interest, we shall find that very often nothing is left to the labourer when his wages are paid. Thus the labourer under the contract system is entirely at the mercy of the contractor and has to work as much as he is able to endure. This evil system, it may be observed, prevails in particular in mines and industrial establishments owned by foreigners who find difficulty in dealing with Chinese labour, but one may perhaps generalize that all underground men in the mines are without exception contract labour. Thus, it has been reported that contract labour forms 25 % in a few mines but as much as 77 % in several others in the total employment of miners. Apart from the mining industry, the system is also considerably adopted in the building trade, dockyards, wharves and other industries where a large number of unskilled workers or coolies are employed at irregular intervals. It is hardly an exaggeration to say that the system is a scourge in Chinese labour; it not only oppresses the working class but results in the long run also in the demoralization of labour and inefficiency in production. There has already started a movement for the abolition of the contract system in

the mining industry but it seems that the good intentions have not yet yielded tangible results.⁴⁹

LIVING CONDITIONS.

Wages and Prices. From working conditions we shall now turn to examine the changes in wages and the cost of living among Chinese factory workers.

As wage studies have just begun and not yet yielded important results in this country, we shall merely refer to a few data that may illustrate the subject under discussion. First of all, the trend of the wages of masons and carpenters in Peiping during the 65 years between 1862 and 1927, may perhaps be taken to indicate the increasingly rapid changes in labour remunerations, although strictly speaking, they are not factory workers. It has been worked out from the past guild records that their daily wages increased in the period three-fold, that is, from 30.1 cents in 1862 to 90 cents in 1927 for the skilled and from 21.5 cents in 1862 to 60 cents in 1927 for the unskilled.⁵⁰

Far down south in the province of Kwangtung, the index numbers of wages for various occupations in different localities show that the wages doubled in the sixteen years from 1912 to 1927. On the whole the increases were comparatively slower in the first ten years than in the later six years.⁵¹

The increases cited above all refer to the years before 1927. In Tientsin, real wages per day of craftsmen and factory workers have been worked out for the years 1927 to 1929 and the remarkable result is that the grand average for all workers was diminishing in the successive years from 54 cents to 52.7 cents. It is apparent that the rise in commodity prices in the period in Tientsin more than counterbalanced the increase in money wages.⁵²

From the average monthly earnings of 30 kinds of factory workers in Greater Shanghai for the year 1929, which have been

⁴⁹ Chinese Economic Journal, Vol. VI, No. 5, pp. 533-541.

⁵⁰ S. D. Gamble: Peking Wages, Yenching University, Peiping, China.

⁵¹ Chinese Labour Yearbook, 1928, pp. 53-64.

⁵² The Chinese Social and Political Review, Vol. XV, No. 1, p. 27.

INDUSTRY AND LABOR

published by the Bureau of Social Affairs, one finds that they differ greatly in industries, according to types of work, and sex and age. Thus, the average monthly earnings range from \$10 to \$15 in industries, like silk reeling, cotton spinning and tobacco; from \$15 to \$25 in industries like foundry, glassmaking cement, enamelling, and from \$25 to \$45 in industries like machinery, ship-building, electricity, silk spinning, cannery and printing. On the whole, the difference in earnings appears to be largely due to the nature of work, the skill required, and the period of training or apprenticeship. The general average monthly earnings of male, female and child workers, in all industries are found to be \$23.74, \$12.82 and \$7.40 respectively.⁵⁸

From what has been stated, the following conclusions may perhaps be drawn. Firstly, labour remuneration in China has increased in recent years. Secondly, although the increase of wages is apparent, it is doubtful if it keeps up with the rise in commodity prices, which will be referred to presently. At any rate, it has been found in Tientsin that real wages actually decreased. Thirdly, discrepancies in earnings or wages appear to be enormous between different industries, between men and women, and between adults and children. Lastly, it may be added that on the whole, labour remuneration is lower in the north than in the south, which fact may be due to a lower standard of living in north China or oversupply of labour in that region owing to backwardness in industrial development. As the minimum wage provisions of the new factory law has not yet been enforced and the collective power of labour is weak, it is natural that the law of supply and demand will be final in the determination of wage rates.

In connection with the problem of wages, mention should be made of the changes in prices. From the index numbers of wholesale prices in Shanghai, Canton, and Tientsin, it is found that the general price level, irrespective of the places covered and the number of commodities included, has ascended conspicuously year after year recently. Even in the period from 1929 to 1930, when the general price level fell considerably in western

⁵⁸ Chinese Sociological Review, Vol. II, No. 1.

CHINA

countries, it showed no abatement in China. The elevation of the commodity price at wholesale amounts, on the average, to about 3 % a year. No doubt, depreciation of silver as well as the scanty supply of products from the interior owing to interruptions of communication must have accelerated the elevation.⁵⁴

The cost of living index numbers that have been constructed in Peiping, Tientsin, and Shanghai show the same tendency. The general index of the cost of living both in Tientsin and in Shanghai has risen to about the same extent in the last five years; it rose in Tientsin from 100 in 1926 to 118 in 1930 and in Shanghai from 100 in 1926 to 124 in 1930. Peiping alone showed in January 1931 a slight decrease of 3.9 points since the base year of 1927 in the cost of living index, owing to an enormous reduction in house rents. The continuous rise in the cost of living indices must be a hardship to the labouring class when we consider that their wages cannot keep pace with it, as the Tientsin figures referred above had evidently shown.⁵⁵

Standard of living. It is now worthwhile to discuss the standard of living among the workers in China. During the last fourteen years, no less than 69 studies were made on the cost of living of the working families in various parts of the country, but, as they were diverse in scope and methods of investigation, only those of the skilled workers in four important

| Cities | Food | Clothing | House rent | Fuel & light | Miscellaneous | Total |
|----------|------|----------|------------|--------------|---------------|-------|
| Shanghai | 56.0 | 9.4 | 6.4 | 7.5 | 20.0 | 100.0 |
| Tientsin | 56.2 | 7.3 | 16.1 | 9.6 | 16.8 | 100.0 |
| Nanking | 55.4 | 4.9 | 9.4 | 7.7 | 22.6 | 100.0 |
| Peiping | 56.3 | 10.3 | 11.6 | 7.5 | 14.2 | 100.0 |

⁵⁴ Prices and Price Indexes in Shanghai, (Monthly) National Tariff Commission, Shanghai.

The Economical Journal, Bureau of Reconstruction, Canton, Kwangtung. Nankai Weekly Statistical Service, Nankai University, Tientsin.

⁵⁵ Prices and Price Indexes in Shanghai (Monthly) Nankai Weekly Statistical Service, Nankai Univ., Tientsin.

Monthly Index Numbers of Cost of Living in Peiping, Institute of Social Research, Peiping.

INDUSTRY AND LABOR

cities may be given here in percentages.⁵⁶ It will be seen that the percentages of food expenses are all around 56 per cent and those for miscellaneous items vary from 13.3 to 22.6 per cent. This demonstrates remarkably well the low standard of living of Chinese working families, which in turn reflects the low wages earned by their breadwinners. It is but natural, as we shall discuss later, that most of the strikes which occurred in recent years were related to the problem of wages.

Consumption of Chinese working families may be gathered from the budgetary studies made for Shanghai cotton mill workers and Peiping home workers.⁵⁷ It has been found that the standard of living was higher among Shanghai factory workers than among Peiping home workers, because the consumption of cereals was only 53.2 per cent of the total food expenditure in the case of the former and 80 per cent in the case of the latter. As shown below, the nutritive value in the foods consumed by

| | Protein | Fat | Carbon-hydrates | Calories |
|--------------------------|---------|-------|-----------------|----------|
| Cotton Workers, Shanghai | 88.09 | 48.52 | 531.01 | 2,913.41 |
| Home Workers, Peiping | 75.88 | 29.61 | 505.27 | 2,595.14 |

these working families per adult equivalent per day was also better in the diet of Shanghai workers than in that of Peiping workers, but in both cases, the amount of fats was insufficient and that of carbonhydrates overabundant. Moreover, it has been found out that 91.5 per cent of the proteids and 86.0 of the calories in the diet of Shanghai workers and 94.6 of the proteids and 95.6 of the calories in the diet of Peiping workers were derived from cereals, legumes and vegetables whose coefficients of digestion are all low. The proteids in the diet of Chinese workers, even if they are sufficient in quantity as in the case of Shanghai workers, are certainly poor in quality. It has

⁵⁶ Simon Yang and L. K. Tao: *A Study of the Standard of Living of Working Families in Shanghai*, Institute of Social Research, Peiping, p. 40. *The Social Affairs Monthly*, Nanking, Jan. 1931, pp. 102-110.

⁵⁷ Simon Yang and L. K. Tao: *A Study of the Standard of Living of Working Families in Shanghai*, pp. 52-67 and appendix. L. K. Tao: *Livelihood in Peking*, pp. 76-122.

CHINA

been maintained by chemists that Chinese workers' diet is on the whole distinctly inferior to that of western workers in quality and is mainly responsible for some physical and mental characteristics of the Chinese, such as short stature, low efficiency, and high death rates.

The housing conditions of Chinese workers are also far from being enviable. It has been found, as shown below, that overcrowding is a usual phenomenon both in Shanghai and in Peiping.

| | Average no. of rooms per family | Average no. of persons per room persons adult equivalent | |
|--------------------------|---------------------------------------|--|------|
| Cotton Workers, Shanghai | 1.42 | 3.29 | 2.59 |
| Home Workers, Peiping | 1.04 | 4.16 | 3.04 |

The housing conditions of workers in Shanghai are in fact more deplorable than our figures show, for the cotton mill workers referred to are provided with the houses built or owned by employers. Those who are not so provided evidently suffer more from overcrowding. The unskilled labourers in that town are not infrequently found to live in small mud huts among cess-pools.⁵⁸

The clothing expenses of the working families are usually cut down to a minimum, because a large part of the workers' income should be spent on foods and other necessary expenses. The workers have to be satisfied with a limited quantity of cotton cloth of the cheapest grade. Sometimes, they have to refit old clothes into new ones or to make use of second-hand clothing bought at a lower price. It was found in the investigation of the cotton mill workers in Shanghai that the average expenditure for clothing per family in the whole year was only \$36.70 of which a little more than half was spent on piece goods. The average clothing expenses per family of the skilled workers in other cities were generally lower than those in Shanghai, varying from \$20 to \$30 per year. The home workers in Peiping spent much less on clothing, for their average expenses for clothing per family in the six months investigated were as low as \$6.94.

⁵⁸ Thomas Tchou: *Housing and Social Conditions among Industrial Workers in Shanghai*, pp. 9-15.

INDUSTRY AND LABOR

It seems incredible to the Western people that \$14, or 13 shillings at the current exchange rate, is all the amount that is needed for clothing a family of 4.58 persons, but that is what the Chinese workers have to be contented with.

Under the heading of fuel and light, the expenses for fuel are much higher than those for light. Electric light is practically unknown among working families. In the miscellaneous group of expenditure, funerals and weddings are usually important items, while educational and sanitary expenses are the least significant.

It is quite obvious that a Chinese worker's life is deplorable. And it is equally obvious that he cannot be contented to remain so for long. The sign of the times clearly points to the necessity of raising the worker's standard of living while industrialization of the country is being hastened. Ideals of distributive justice, it may be observed, are by no means unknown among Chinese workers and with a great workers' republic as our neighbour, it seems that the demand for improving the living conditions of our workers become much more urgent.

Labour Unions.

Labour organization in its modern sense has only a career of two decades in China, though it has existed in its early forms of the guild for many centuries. The first modern labour organization was formed in 1911 by a few members of the Kuomintang in Shanghai, but it was finally dissolved when the Kuomintang members were exiled by Yuan Shih K'ai in 1912. During the Great War, Chinese workers who were sent to the front in Europe to do war work, brought back with them the union idea. But it was mainly through the influence of political leaders and students that labour unions were organized one after another. Early in the spring of 1919, twenty-six trade unions of the modern type were formed and immediately after the successful strike of the Mechanics' Union in Hongkong more than one hundred new unions came into existence. It has been said that from Armistice to 1921, approximately 200,000 factory workers were organized into various unions in different cities.⁵⁹

⁵⁹ S. K. Sheldon Tso: *The Labour Movement in China*, Commercial Press, Shanghai.

CHINA

However, during that period the labour union was not accorded recognition and the right to strike was formally denied in article 244 of the Provincial Criminal Code. It was Dr. Sun Yat-sen, the founder of the Kuomintang, who first abolished that article in Canton in 1921 and gave the labour union a legal status. Since then, the Kuomintang has been active in organizing into unions workers and farmers, on whose allegiance and assistance the success of the Party largely depended. From 1922 to 1926, three National Labour Conferences were held at Canton in which a number of regulations were passed and put into action.

Since the labour movement has always been under the leadership of the Kuomintang, it is inevitable that it has assumed a political complexion. It thus reached its climax in 1927 when the Nationalist Government was established in Hankow. According to the report of the Chinese delegate at the Pan-Pacific Labour Conference held in Hankow in that year, there were then altogether 3,065,000 labourers in unions in China.⁶⁰ The split between the Kuomintang and the Communists in that year gave a heavy blow upon trade unionism, for many unions that were manifestly under the direct control of the latter were to be suppressed. A number of regulations were then promulgated by the Kuomintang Government to restrict the activities of trade unions, requiring them to dissolve, to reorganize, or to register as the case might be. It was reported that 200 trade unions in Kwangtung and 2,802 branch unions with 494,819 members in Hupei had been dissolved in 1928.⁶¹ From that time onward, trade unions in China have been under the direct control of the Nationalist Government, though a certain number of them may secretly affiliate themselves to other parties.

The Labour Department of the Ministry of Industry, Commerce and Labour, Nanking, has since its establishment made two investigations into the registered trade unions in China. The total number given by the first investigation in 1928 was 1,117 unions with 1,773,997 members in twelve provinces and five municipal-

⁶⁰ Pan-Pacific Trade Union Conference, Bulletin of Proceedings, May 24, 1927, Nos. 3-A, p. 7.

⁶¹ Labour Unions in Various Places, 1928, Ministry of Industry, Commerce, and Labour, Appendix, pp. 7-31.

INDUSTRY AND LABOR

ities, while that of the second one in 1930 was 741 unions with 576,250 members in twenty-seven cities of nine provinces. A comparison of the figures of the ten cities which were included in both investigations shows that organized labourers in China increased from 339,431 in 439 unions in 1928 to 349,758 in 444 unions in 1930. It does not follow from the latter figures, that there were more organized labourers in 1930 than in 1928, but what the figures most probably mean are that more unions were registered with the authorities in 1930 than in 1928, especially in the industrial and commercial centres. If we assume that there was not much change in the unions in the rural districts covered by the survey of 1928, it appears that there were in 1930 1,419 trade unions with 2,010,816 members, which may be taken as the approximate figure for the organized labour in China.⁶²

Industrial Disputes.

With the rise of labour unions and the spread of labour movement, it follows naturally that the number of industrial disputes in China should increase rapidly in recent years. Industrial disputes that materialized into strikes in the period of nine years, 1918 to 1926, according to Professor Ta Chen, totalled 1,098 or 1,232 including those arising directly from the May 30th (1925) incident in Shanghai.

The number of strikes increased from 25 in 1918 to 535 in 1926, the annual average being 122, or 137 including the May 30th incident. The average number of strikers per dispute in the reported cases was 2,525.65 while the average duration was 6.81 days. If the May 30th affair be included, they would be 2,768.38 and 9.18 respectively. Of all industries, the textile was the hardest hit and the basic industries least affected.

Out of the 1,232 strikes, 581 or 41 % were due to economic pressure, of which the strikes for wage increase amounted to 444 or 36 %: next in importance were those strikes relating to the treatment of labour which amounted to 283 or 23 % of the total. Strikes as manifestations of the popular movement were

⁶² Ibid. 1928-1929.

⁶³ Ta Chen: Analysis of Strikes in China, 1918-1926, Bureau of Industrial and Commercial Information, Shanghai.

CHINA

64 in number, or 198 if those connected with the May 30th incident were included. The number of strikes under other headings were all less than one hundred. Only in 273 cases did any disorder occur and only 356 strikes were settled through the arbitration of a third party. Out of the 728 strikes for which the terms of settlement were known, 44.9 or 61.68 % were successful, 16.4 or 22.53 % were partially successful and 115 or 15.79 % were failures.⁶³

Since the year 1926, no comprehensive study of strikes is available, but the statistics of industrial disputes collected and analysed by local authorities are quite illuminating. Here only the industrial disputes in Shanghai during 1927-29 will be referred to. The number of strikes in Shanghai increased from 119 in 1927 to 120 in 1928 and then decreased to 111 in 1929 while the number of workers involved has kept on diminishing year by year. The small number of cases in 1927 may be due to the incompleteness of the data, but the decline in the number of strikes and that of workers affected in 1929 is certainly significant, because as many as 372 cases of disputes involving 4,560 establishments and 64,681 workers in that year were conciliated and did not result in strikes or lockouts.

Of the industries and services affected by the strikes in the three years, the manufacturing industries were the chief ones. Its percentage varied from 78 in 1927 to 69.18 in 1928 and then to 80.18 in 1929. Among the manufacturing industries, the textile claimed the first place, which had 50 or 41 % in 1927, 36 or 30 % in 1928 and 36 or 32 % in 1929. In the communication and transportation services, 18 cases of strikes occurred in 1927, 13 in 1928, but only one in 1929; the scarcity of strikes in the last year was due to the regulations for conciliation and arbitration promulgated by the Government in June 1928, which forbids men in the services of communication and transportation to strike.

Of the 119 strikes in 1927, 28 were caused by the high cost of living, 26 by either refusal or failure on the part of employers to grant employees' demands, and the rest by factors bearing directly or indirectly upon the treatment of workers and their working conditions. One general strike took place in that year

INDUSTRY AND LABOR

by order of the Confederation of Labour Unions in Shanghai. In the other two years, the majority of the cases were concerned with conditions of employment. There were more political and sympathetic strikes in 1928 than in 1929 while the number of cases concerning engagement or dismissal of workers increased from 24 in 1928 to 36 in 1929. The number of partially or wholly successful strikes was 58 in 1927, 84 in 1928, and 73 in 1929; in percentages they increased from 50 in 1927 to 71.80 in 1928 but dropped to 65.77 in 1929. The cases in which workers' demands were rejected formed 18.01 in 1927 and 10.25 % in 1928 but increased to 28.83 % in 1929. Apart from the year 1927 for which no definite figures are available, the total number of man-days lost, it has been found, reduced from 3,010,926 in 1928 to 751,146 in 1929, while that of the wages lost from \$1,592,593 in 1928 to \$488,695 in 1929. However, the average duration per case increased from 7.6 days in 1928 to 9.6 days in 1929.⁶⁴

It seems that industrial disputes in China are now on the decrease. On the one hand, with the establishment and operation of the machinery of conciliation and arbitration in all the commercial and industrial towns, many strikes are nipped in the bud. On the other hand, as all the unions are now under the supervision of the Kuomintang, there is hardly any occasion for disputes of a non-industrial character to arise.

Labour Legislation.

Our discussion of industrial relations would not be complete if labour legislation in China is omitted from our discussion. As its history is short, it may be disposed of in a few lines. The first labour law that had been enacted under the title of the Provisional Factory Regulations appeared only in 1923, although provisions relating to the employment of miners were embodied in the Mines Regulations of 1914. Since 1923, regulations and ordinances of a temporary nature concerning the conditions of factory employment, trade unions, and industrial disputes have

⁶⁴ Chinese Economic Journal, Vol. II, No. 4, pp. 334-339.

Strikes and Lockouts in Greater Shanghai, 1929 and 1930, Municipal Bureau of Social Affairs, Shanghai

CHINA

been issued from time to time, but all of them now become null and void since the Nationalist Government in Nanking has during the last three years promulgated the three labour laws described below.

The factory Law of 1929, which is going to take effect in August 1931, is the most important labour legislation that has ever been promulgated in China. It prohibits the employment of children under the age of fourteen in factories and the employment of female workers and young workers between the age of fourteen and sixteen in dangerous trades and night work. The regular working day is fixed at eight hours, but that of adult workers may be extended to ten hours, whenever necessary. Under special circumstances, it may be again extended to twelve hours, but the total overtime work shall not exceed 36 hours a month. One day in every seven days and all other legal holidays are granted for rest, and in addition, a special period of annual rest based upon the length of employment is also granted. Minimum wage rates shall be fixed on the basis of local cost of living and equal wages paid for equal work. Allowance and compensation shall be paid to workers in case of injury, sickness, or death through the performance of their duty and to female workers before and after childbirth. Safety and health provisions, industrial welfare work and the proper training of apprentices are duly emphasized, and works committees, composed of the representatives of employers and workers, are introduced to improve industrial relations. All these are applicable to any factory driven by steam, gas, electricity or water power, and employing regularly thirty or more persons. As a body of competent staff is now being trained for factory inspection, the enforcement of this law in the future is expected to bring enormous benefits to Chinese workers.

The new Labour Union Law was promulgated on October 24st 1929 and enforced since November 1st the same year. It provides that when industrial workers of both sexes above the age of sixteen, belonging to the same industry or trade amount to one hundred, they may form a union for the purpose of increasing their knowledge, skill, productive capacity, and improving their working conditions and living standard. A worker is only allowed

INDUSTRY AND LABOR

to become the member of one industrial or trade union, and only one union of the same trade is allowed to exist in a district. All labour unions should be organized under the supervision of the local government and the Kuomintang, and registered with the proper authorities. Strikes, though legally recognized, can only be declared when attempts to settle the disputes by conciliation and arbitration have failed and two thirds of the union members have voted for them. Moreover, workers engaged in government services, communication, and public utilities are not allowed to strike, and any demand for an increase of wages above the standard rates is considered unreasonable and illegal. In short, the Labour Union Law of 1929, while recognizing the right of association and strike among the industrial workers, restricts the activities of labour unions to those of a purely economic nature in order to avert meaningless strikes and other forms of industrial unrest.

The Law concerning the Industrial Disputes between Employers and Workers was promulgated in 1928 and amended in 1930. It provides that any industrial dispute involving more than fifteen workers should be referred first to the Board of Conciliation and if it fails, to the Board of Arbitration. The former is constituted by one or three representatives of the administrative authority and two representatives of the parties concerned, while the latter is constituted by three persons each being appointed by the local government, the local law court and the local Kuomintang, and two representatives of employers and workers not directly concerned. The decisions of the Board of Conciliation shall have the force of contract between the parties concerned only when they are successful, but those of the Board of Arbitration shall be final and binding, if no objection is raised within five days after the award has been given. This new machinery for settling industrial disputes is perhaps the most efficient organ ever created in China, because, as mentioned before, many strikes have thereby been averted and industrial peace maintained.⁶⁵

CHINA AND WORLD ECONOMY PLANNING

A few general observations may now be made regarding China's position in industry. First, it has now become absolutely inevitable for China to industrialize herself in view of the un-economic character of her traditional economic system. Secondly, China is late in joining the race of industrial development. Her handicap in time is perhaps one of her greatest disadvantages to overcome in her task of industrialization. Now that many nations have been well on the way of the Second Industrial Revolution, she would be indeed thankful if she is capable in the next few decades of entering upon the stage of the first. Thirdly, in none of the essential elements of modern industrial production is China equipped. Mention has been made in the foregoing pages of the limitation of China's resources such as coal and iron and of low capitalization in the case of her cotton, coal and iron industries, but in other factors of production, such as communication, industrial technique, scientific management, she is equally deficient. Fourthly, there has been some industrial progress in China, but it is undoubtedly the Great War that offered China an excellent opportunity to develop her industries. In this connection two things should be noted: first, compared with Japan, China's industrial development in that period was still very restricted, and second, the industries developed in that period were mainly textile and of other lighter type, while such basic industries as chemical and steel manufacture were hardly started. Fifthly, China's industrial development in the future, perhaps more so than in the past, is inextricably involved with that of other nations, in particular the industrial powers. If it is true for all nations that industrial development of one nation is circumscribed by that of the rest, it would be applicable with more serious effect in China where foreign interests enjoying special privileges are deeply entrenched. Thus, adjustments must be made between China and foreign powers if industrial development of the former is to be realized.

It seems that some discussion of the last point is particularly worthwhile in view of the fact that world economic planning should be the immediate aim of the human race. Whether the conditions in China would facilitate a world economic order is

INDUSTRY AND LABOR

of paramount practical significance, as her population and extent alone must entitle her to an important place in the planning. However, as things are, special conditions of foreign interests in China would no doubt put a hindrance to the realization of any such order.

First of all, it should be pointed out that industries in China are now mainly concentrated in towns, where foreigners keep, on the strength of antiquated unilateral treaties entirely derogatory to Chinese interests, special areas under their own jurisdiction known as concessions and settlements and leased territories, over which Chinese administration has absolutely no power. Within that area, all the industrial enterprises, regardless of whether they are owned and controlled by foreign nationals, enjoy full immunity from Chinese legislation and administration.

If both foreign and Chinese enterprises located in concessions, settlements and leased territories are exempted from Chinese jurisdiction, the former is further protected by what is known as extra-territoriality. Under extra-territoriality, a foreigner and his interests in China are entirely immune from the law of the land; they have every right to enjoy but no duty to perform, being unaffected by legislative measures and administrative actions of China. That any nation except China could ever tolerate the very existence on its land of such "extra-territorial" rights is certainly inconceivable. How can one imagine, for instance, that Great Britain could afford to let her Welsh mines and Lancashire mills be wholly immune from English law, simply because they are owned and controlled by foreigners?

Now there is a much more serious danger among foreign interests in China which can hardly be realized anywhere. Certain foreign industrial enterprises are run in China not merely as a profit concern making dividends for their investors who are mainly if not entirely foreigners but as a national concern in carrying out an imperialist policy against Chinese interests. For instance, Japanese interests in Chinese coal and iron, it has been said, are intended for furnishing their nation with sufficient amount of such important mining products which they lack, in any eventuality of war. In this case, China is entirely deprived of economic independence and reduced to the position of a colony

subordinating its economic interests to some other nation.

What have been pointed out are formidable obstacles to China's industrial development. In fact that they are more than obstacles, but fearful menaces which might crush out of existence altogether the economic life of the Chinese. It has sometimes been asserted that Chinese have now developed an anti-foreign complex. But when the complications of so-called foreign rights are studied and their implications on Chinese social and economic life analysed, there would be no wonder whatsoever that any industrial enterprise that is foreign is looked at with misgiving and fear.

It seems very likely that foreign interests will in time more and more intrench themselves in the Chinese economic system. Foreign capital will flow into China in abundance, when surplus of it is found abroad. The appreciation of gold in relation to silver would encourage still more the inflow of foreign capital into the silver-using China. At the time of writing, it is reported that the transfer of Japanese enterprises to China from May 1930 to January 1931 is valued at \$571,000 and more are to be established shortly.⁶⁶ In view of the special privileges enjoyed by foreign interests in China, it may be definitely stated that such transfer of capital and enterprises is far from desirable.

It may be supposed that no person of a sane mind to-day could possibly repudiate the idea of a world economic order. In view of the increasing interdependence of economic interests between nations which has developed since last century and furthermore in view of the world wide depression which is no doubt due to a very great extent to the economic anarchy of modern nations, no more argument is necessary to bolster up that idea. That some kind of a world economic order must be worked out and, as time goes on, refined and improved upon, is not only urgent but imperative; it is indeed no exaggeration to say that the future of civilization entirely depends upon its success.

It may also be supposed that Chinese, least of all, would welcome world economic planning. Not that they claim that their population and extent should entitle serious consideration in any

⁶⁶ Finance and Commerce (Weekly) Shanghai, May 13, 1931, p. 25.

INDUSTRY AND LABOR

scheme of world economic planning. The point in fact is, to what extent and how far in any such scheme they, with their teeming millions and extensive territory should and might contribute to the social and economic progress of the whole human race. While on the one hand China is intended to pursue a policy of industrial development in order to fulfil her nationalistic aspirations, on the other hand she takes upon herself this task with a view to making herself an efficient member of the coming world economic order. In a wider view the two are in fact not at all antagonistic but necessarily complementary.

But it is well to realize the peculiar position of China before any scheme of world economic planning can be formulated. The unequal standing between China and the foreign powers, that is, the exploitation by industrial powers of an industrially backward nation, must be changed. Otherwise no scheme of world economic planning that could be just and fair to all nations of the world is possible.

In short, if anything can be said at all of the Chinese sentiment toward the idea of world economic planning, it is certainly not disapproval but apprehension. Will the idea embody the new spirit of international justice and goodwill, introducing ethical considerations into the economic arrangements that hold the world of nations today on the one hand and wiping out all the conditions of inequality which impede the normal economic progress of backward nations on the other, - so that all nations may live and let live? If so, that apprehension will be readily dispelled. But who can tell if under the attractive name of world economic planning is not disguised merely a step forward in the assertion of the rights of the modern industrial powers, dividing as their spoils the natural resources, man power and markets of the industrially backward nations?

NOTE ON UNEMPLOYMENT IN CHINA

Unemployment statistics in its proper sense are not obtainable in China. For lack of anything better, the following data on unemployment may perhaps be of some use.

In Shanghai two enquiries, one in July 1928 and the other in September 1929, were made into the unemployment of union workers, data being supplied by labour unions. An analysis of the statistics for the two years, which are reproduced on another page, shows that whereas the total number of organized workers amounted to 384,251 in July 1928, it fell considerably - to 155,069 - in August 1929. The total number of organized workers unemployed also showed a decrease, from 75,584 in July 1928 to 10,009 in August 1929. This remarkable decrease may be accounted for partly by the failure of some unions to register themselves with the Municipal Bureau of Social Affairs and partly by their dissolution by the authorities. But the chief reason must be found in the enormous reduction of the total number of sailors in 1929; the employed sailors dropped from 167,375 in 1928 to 8,689 in 1929, while the unemployed sailors dropped from 60,000 in 1928 to 2,000 in 1929. The percentage of the organized workers unemployed, including sailors, was as high as 19.67 (475,584 unemployed) in 1928 but only 6.45 (10,009 unemployed) in 1929. The same, excluding sailors, however, shows a decrease from 7.19 in 1928 to 5.47 in 1929. This may perhaps be taken as some slight improvement of the unemployment situation in Shanghai, though it should be remembered that the enquiry only included union workers.

As to the distribution of the unemployed according to age and sex, the following figures for 1929 are available:

| | Men | Women | Children | Total |
|-----------------------------|---------|--------|----------|---------|
| Total No. of the 187 unions | 117,587 | 97,879 | 9,603 | 155,069 |
| Total No. of unemployed. | 8,652 | 1,084 | 270 | 10,009 |
| Percentage | 7.35 % | 3.88 % | 2.84 % | 6.45 % |

UNEMPLOYMENT

Another study of 1,215 unemployed workers by the same Bureau revealed that unemployment owing to discharge by employers constituted no less than 61.63 %, while that owing to voluntary action on the part of the workers formed only 17.43 % of the total. As to the duration of unemployment, 310 were above one year and 321 above six months, the two groups combined constituting more than one half of the cases. The number of cases decreased as the duration of unemployment became shorter; there were only 16 cases under one month.

In Peiping, the Bureau of Social Affairs tried to collect estimates of the number of unemployed from various trade guilds which are members of the Peiping Chamber of Commerce. From the data thus obtained, it was found that out of 91,476 members in 52 guilds, 29,902 or 32.69 % were unemployed during the period from July 1928 to June 1929 and the highest percentages of unemployment were in the food and drink and clothing trades. This deplorable unemployment situation is no doubt mainly due to the removal of the national capital from Peiping to Nanking.

In South China, an investigation conducted by the Kwangtung Provincial Government in the spring of 1929, gave some statistics on the unemployment of the organized labour in that province. It was reported that out of the total number of 272,631 trade union members, 20,462 or 7.5 % were unemployed at that time.

It was also reported that among the thirteen industries in Canton, the transport industry claimed the largest amount of unemployed while the machine industry was the least affected.

The unemployment figures cited above cannot be considered as complete, since they included neither unorganized workers nor those in unions not registered.

It is unnecessary for us to state how defective unemployment statistics are at present in China. But we understand that

CHINA

the Municipal Bureau of Social Affairs in Shanghai has decided to take it up more systematically in the near future and this Institute will prepare a manual on the methods of collecting and compiling unemployment statistics for the use of the workers in this field.

Peiping, June 1931.

TABLE I. UNEMPLOYMENT OF ORGANIZED LABOUR IN SHANGHAI - JULY 1928 AND AUGUST 1929

| Kind of Labour | July 1928 | | | | August 1929 | | | |
|---------------------------|---------------|----------------|-------------------|-------|---------------|----------------|-------------------|-------|
| | No. of unions | No. of members | No. of unemployed | % | No. of unions | No. of members | No. of unemployed | % |
| Textile | 164 | 91,588 | 4,498 | 4.91 | 51 | 43,839 | 2,121 | 4.83 |
| Food and Drink | 15 | 12,036 | 1,388 | 11.53 | 15 | 12,919 | 1,281 | 9.91 |
| Building | 9 | 5,665 | 147 | 2.59 | 6 | 4,298 | 22 | 0.51 |
| Machinery | 28 | 11,630 | 1,334 | 11.47 | 12 | 7,311 | 902 | 12.34 |
| Transport | 62 | 195,162 | 60,370 | 30.93 | 28 | 19,541 | 2,181 | 11.16 |
| Paper, Printing | 13 | 11,572 | 3,564 | 30.80 | 12 | 11,348 | 373 | 3.29 |
| Chemical | 30 | 28,043 | 2,668 | 9.51 | 17 | 15,750 | 121 | 0.76 |
| Household Conveniences | 14 | 6,538 | 197 | 3.01 | 9 | 4,231 | 627 | 14.81 |
| Business | 20 | 9,715 | 589 | 6.06 | 21 | 28,522 | 1,757 | 6.15 |
| Miscellaneous | 25 | 12,302 | 829 | 6.74 | 16 | 7,310 | 624 | 8.56 |
| Total | 380 | 384,251 | 75,584 | 19.67 | 187 | 155,069 | 10,009 | 6.45 |
| Total (Excluding Sailors) | — | 216,876 | 15,584 | 7.19 | — | 146,380 | 8,009 | 5.47 |

Nankai Weekly Statistical Service Vol. IV. No. 4.

TABLE II. UNEMPLOYMENT IN PEIPING 1928—1929

| Trade | No. of mem- bers June 1928 | No. of unem- ployed June 1929 | Percentage |
|------------------------|-------------------------------|----------------------------------|------------|
| Food and Drink | 27,127 | 9,768 | 36.01 |
| Clothing | 21,121 | 10,459 | 49.52 |
| Metal | 4,238 | 1,025 | 24.19 |
| Household Conveniences | 9,677 | 2,010 | 20.77 |
| Fuel and Light | 4,945 | 1,197 | 24.20 |
| Dyeing | 12,318 | 1,867 | 15.15 |
| Others | 10,698 | 3,439 | 32.14 |
| Shops in Haitien . . . | 896 | 14 | 1.56 |
| Shops in Tsai-Yu . . . | 456 | 123 | 26.97 |
| Total . . . | 91,476 | 29,902 | 32.69 |

The Peiping Municipal Records Nos. 41 and 42

TABLE III. STATISTICS ON UNEMPLOYMENT OF ORGANIZED LABOUR
IN KWANTUNG 1929

| Occupation | No. of Unions | No. of Members | No. of Members Unemployed | Percentage. |
|-----------------------------------|---------------|----------------|---------------------------|-------------|
| Transport | 36 | 80,089 | 4,086 | 5.10 |
| Food and Drink . . . | 29 | 19,094 | 1,364 | 7.14 |
| Clothing | 21 | 6,418 | 1,512 | 23.56 |
| Weaving & Dyeing . . | 10 | 6,479 | 1,686 | 26.02 |
| Wood, Bamboo, Paint | 18 | 9,128 | 2,334 | 26.57 |
| Clay and Stone . . . | 8 | 5,198 | 2,871 | 55.23 |
| Construction | 11 | 15,747 | 490 | 3.11 |
| Machinery | 4 | 2,166 | 40 | 1.85 |
| Paper & Printing . . . | 14 | 3,853 | 980 | 25.43 |
| Peddling | 7 | 1,586 | 253 | 15.95 |
| Barbers | 13 | 2,483 | 261 | 10.51 |
| Artists | 5 | 5,332 | 1,184 | 22.21 |
| Miscellaneous | 45 | 15,766 | 2,731 | 17.32 |
| Branches of Provincial Union | 10 | 99,292 | 670 | 0.67 |
| Union Reorganization Committee | 2 | — | — | — |
| Tanshan Labour Union | 1 | — | — | — |
| Grand Total | 234 | 272,631 | 20,462 | 7.51 |

Nankai Weekly Statistical Service Vol. IV No. 4.

NOTE SUR LE CHOMAGE EN CHINE

On ne peut pas se procurer en Chine de statistiques du chômage à proprement parler. Faute de mieux, les données qui suivent seront sans doute de quelque utilité.

A Shanghai, deux enquêtes sur le chômage parmi les syndiqués ont été menées, l'une en juillet 1928, l'autre en septembre 1929, par les syndicats ouvriers. On trouvera ci-dessous les statistiques dressées à chacune de ces deux époques. Leur analyse montre que, bien que le nombre total des syndiqués ait atteint 384.251 en juillet 1928, il s'est trouvé considérablement réduit en août 1929 (155.069). Le nombre total des chômeurs parmi les syndiqués montre également une diminution, de 75.584 en juillet 1928 à 10.009 en août 1929. Cette remarquable réduction peut s'expliquer en partie par la négligence de certains syndicats à se faire enregistrer au Bureau Municipal des Affaires Sociales et, en partie, par la dissolution de quelques syndicats par les autorités. Mais la principale cause doit en être cherchée dans l'énorme réduction du nombre total des marins en 1929; le nombre des marins employés tomba de 167.375 en 1928 à 8.689 en 1929, tandis que le nombre des marins chômeurs s'abaissait de 60.000 en 1928 à 2.000 en 1929. Le pourcentage des chômeurs syndiqués, y compris les marins, atteignait 19,67 % en 1928 (75.584 chômeurs) et seulement 6,45 % en 1929 (10.009 chômeurs). Toutefois, les mêmes proportions, si l'on exclut les marins, s'établissent à 7,19 % en 1928 et 5,47 % en 1929. On peut sans doute en déduire une légère amélioration de la situation du chômage à Shanghai bien qu'il ne faille pas oublier que ces enquêtes portent seulement sur les membres des syndicats.

Quant à la répartition des chômeurs selon l'âge et le sexe, on peut s'en rapporter aux chiffres suivants pour 1929:

| | Hommes | Femmes | Enfants | Total |
|---|---------|--------|---------|---------|
| Nombre total des membres de 187 syndicats | 117.587 | 27 879 | 9.603 | 155.069 |
| Nombre de chômeurs syndiqués | 8.652 | 1.084 | 273 | 10.009 |
| Pourcentage | 7,35% | 3,88% | 2,84% | 6,45% |

NOTE SUR LE CHOMAGE

Une autre enquête portant sur 1,215 ouvriers chômeurs fut entreprise par le même Bureau et révéla que le chômage dû aux congédiements par les employeurs ne constituait pas moins de 61,63 % du chômage total tandis que celui qui est imputable aux départs volontaires des ouvriers atteignait seulement 17,43 % du total. En ce qui concerne la durée moyenne du chômage, 310 ouvriers étaient inoccupés depuis plus d'un an et 321 depuis plus de 6 mois, ces deux groupes constituant ensemble plus de la moitié des cas. Le nombre des ouvriers inoccupés diminuait avec le nombre des jours de chômage, de sorte qu'il n'y avait plus que 16 cas de chômage inférieur à 1 mois.

A Peiping, le Bureau des Affaires Sociales essaya de recueillir des données estimatives sur le nombre des chômeurs affectant différentes corporations membres de la Chambre de Commerce. Des données ainsi obtenues, on put déduire que sur 91.476 membres répartis en 52 corporations, 29.902 ou 32,69 % chômaient entre juillet 1928 et juin 1929, et que, d'autre part, la proportion de chômeurs la plus élevée se trouvait dans les métiers de l'alimentation et du vêtement. Cette déplorable situation du chômage est dûe, sans aucun doute, au déplacement du capital national de Peiping à Nanking.

Dans la Chine méridionale, une enquête menée par le gouvernement provincial du Kuangtung au printemps 1929 donna quelques statistiques sur le chômage parmi les ouvriers syndiqués de cette province. Il fut établi que, sur un total de 272.631 syndiqués, 20.462 ou 7,5 % étaient sans emploi à cette époque.

Il fut également établi que, parmi les 30 genres d'industries de Canton, les transports se trouvaient le plus sérieusement affectés par le chômage, tandis que l'industrie mécanique était le plus faiblement touchée.

Les chiffres de chômage cités ci-dessus ne peuvent pas être considérés comme complets, parce qu'ils ne comprennent pas

les ouvriers non syndiqués ni ceux qui font partie de syndicats non enregistrés.

Il est inutile de s'appesantir sur l'insuffisance des statistiques actuelles du chômage en Chine; nous apprenons cependant que le Bureau Municipal des Affaires sociales de Shanghai a décidé de les établir d'une façon plus systématique à l'avenir, et cette institution va préparer un manuel sur les méthodes de récolement et de mise en oeuvre des données statistiques du chômage en ce qui concerne les travailleurs des champs.

TABLEAU I.

CHOMAGE PARMi LES SYNDIQUÉS A SHANGHAI - Juillet 1928

| Genre de travail | Nombre de syndicats | Nombre d'ouvriers syndiqués | Nombre de chômeurs | % |
|---|---------------------|-----------------------------|--------------------|-------|
| Textile | 164 | 91.588 | 4.498 | 4,91 |
| Alimentation | 15 | 12.036 | 1.388 | 11,53 |
| Construction | 9 | 5.665 | 147 | 2,59 |
| Mécanique | 28 | 11.630 | 1.334 | 11,47 |
| Transports | 62 | 195.162 | 60.370 | 30,93 |
| Papier-Impressions | 13 | 11.572 | 3.564 | 30,80 |
| Produits chimiques | 30 | 28.043 | 2.668 | 9,51 |
| Services domestiques | 14 | 6.538 | 197 | 3,01 |
| Commerce | 20 | 9.715 | 589 | 6,06 |
| Divers | 25 | 12.302 | 829 | 6,74 |
| Total | 380 | 384.251 | 75.584 | 19,67 |
| Total (Marins exclus) | | 216.876 | 15.584 | 7,19 |
| Service statistique hebdomadaire de Nankai, Vol. IV No. 4 | | | | |

TABLEAU I. (SUITE)

CHOMAGE PARMi LES SYNDIQUÉS A SHANGHAI - Août 1929

| Genre de travail | Nombre de syndicats | Nombre d'ouvriers syndiqués | Nombre de chômeurs | % |
|---|---------------------|-----------------------------|--------------------|-------|
| Textile | 51 | 43.839 | 2.121 | 4,83 |
| Alimentation | 15 | 12.919 | 1.281 | 9,91 |
| Construction | 6 | 4.298 | 22 | 0,51 |
| Mécanique | 12 | 7.311 | 902 | 12,34 |
| Transports | 28 | 19.541 | 2.181 | 11,16 |
| Papier-Impressions | 12 | 11.348 | 373 | 3,29 |
| Produits chimiques | 17 | 15.750 | 121 | 0,76 |
| Services domestiques | 9 | 4.231 | 627 | 14,81 |
| Commerce | 21 | 28.522 | 1.757 | 6,15 |
| Divers | 16 | 7.310 | 624 | 8,56 |
| Total | 187 | 155.069 | 10.009 | 6,45 |
| Total (Marins exclus) | | 146.380 | 8.009 | 5,47 |
| Service statistique hebdomadaire de Nankai, Vol. IV No. 4 | | | | |

TABLEAU II. CHOMAGE A PEIPING (1928-29)

| Métiers | Nombre de | Nombre de | % |
|----------------------|----------------------|-----------------------|--------------|
| | membres Juin 1928 | chômeurs Juin 1929 | |
| Alimentation | 27.127 | 9.768 | 36,01 |
| Vêtement | 21.121 | 10.459 | 49,52 |
| Métaux | 4.238 | 1.025 | 24,19 |
| Services domestiques | 9.677 | 2.010 | 20,77 |
| Chauffage-Eclairage | 4.945 | 1.197 | 24,20 |
| Teinture | 12.318 | 1.867 | 15,15 |
| Autres métiers | 10.698 | 3.439 | 32,14 |
| Magasins à Haitien | 896 | 14 | 1,56 |
| Magasins à Tsai-Yu | 456 | 123 | 26,97 |
| Total | 91.476 | 29.902 | 32.69 |

Bulletin municipal de Peiping, Nos. 41 et 42

TABLEAU III. STATISTIQUE DU CHOMAGE PARMI LES SYNDIQUÉS DANS LE KUANTUNG (1929).

| Métiers | Nombre de syndicats | Nombre de membres | Nombre de chômeurs | % |
|--|------------------------|----------------------|-----------------------|-------------|
| Transports | 36 | 80.089 | 4.086 | 5,10 |
| Alimentation | 29 | 19.094 | 1.364 | 7,14 |
| Vêtement | 21 | 6.418 | 1.512 | 23,56 |
| Tissage et Teinture | 10 | 6.479 | 1.686 | 26,02 |
| Bois, bambou, peinture | 18 | 9.128 | 2.334 | 26,57 |
| Carrières | 8 | 5.198 | 2.871 | 55,23 |
| Construction | 11 | 15.747 | 490 | 3,11 |
| Mécanique | 4 | 2.166 | 40 | 1,85 |
| Papiers et Impressions | 14 | 3.853 | 980 | 25,43 |
| Colportage | 7 | 1.586 | 253 | 15,95 |
| Coiffeurs | 13 | 2.483 | 261 | 10,51 |
| Artistes | 5 | 5.332 | 1.184 | 22,21 |
| Divers | 45 | 15.766 | 2.731 | 17,32 |
| Syndicats annexes des syndicats provinciaux | 10 | 99.292 | 6.70 | 0,67 |
| Commission de réorga- nisation syndicale | 2 | — | — | — |
| Syndicat de Tanshan | 1 | — | — | — |
| Total général | 234 | 272.631 | 30.462 | 7.51 |

Service statistique hebdomadaire de Nankai Vol. IV N^o. 4

BEMERKUNGEN ÜBER ARBEITSLOSIGKEIT IN CHINA

Statistiken über Arbeitslosigkeit in ihrem eigentlichen Sinn sind in China nicht zu bekommen. In Ermangelung von etwas Besserem mögen die folgenden Data über Arbeitslosigkeit vielleicht von einigem Nutzen sein.

In Schanghai wurden zwei Rundfragen, eine im Juli 1928 und die andere im September 1929, über die Arbeitslosigkeit von Gewerkschaftsarbeitern veranstaltet, deren Angaben durch die Arbeitergewerkschaften geliefert wurden. Eine Analyse der Statistiken für diese beiden Jahre, welche auf einer anderen Seite wiedergegeben sind, zeigt, dass die Gesamtzahl der organisierten Arbeiter, welche noch im Juli 384,251 betrug, beträchtlich bis auf 155,069 im August 1929 fiel. Die Gesamtzahl der organisierten Arbeitslosen zeigt ebenfalls eine Abnahme von 75,584 im Juli 1928 auf 10,009 im August 1929.

Diese bemerkswerte Abnahme mag teilweise dem Umstande zugeschrieben werden, dass einige Gewerkschaften sich nicht mehr in das Register der Stadtbüros für Soziale Angelegenheiten eintragen liessen, und teilweise, dass sie durch die Behörden aufgelöst wurden. Aber der Hauptgrund muss in dem enormen Rückgang der Gesamtzahl der Seeleute im Jahre 1929 gefunden werden. Die Zahl der beschäftigten Seeleute ging von 167,375 im Jahre 1928 auf 8,689 im Jahre 1929 zurück, während die Gesamtzahl der arbeitslosen Seeleute von 60,000 im Jahre 1928 auf 2,000 im Jahre 1929 zurückging. Der Prozentsatz der organisierten Arbeitslosen, einschliesslich Seeleute, war etwa 19,67 (75,584 Arbeitslose) im Jahre 1928, aber nur 6,45 (10,009 Arbeitslose) im Jahre 1929. Der gleiche Prozentsatz, aber ausschliesslich Seeleute, zeigt jedoch eine Abnahme von 7,19 im Jahre 1928 auf 5,47 im Jahre 1929. Dieses mag vielleicht als kleiner Beitrag zur Beleuchtung der Lage der Arbeitslosigkeit in Schanghai dienen, obgleich dabei bemerkt werden muss, dass die Untersuchung sich nur auf Gewerkschaftsarbeiter erstreckt.

CHINA

Für die Verteilung der Arbeitslosigkeit in Bezug auf Alter und Geschlecht stehen für 1929 folgende Angaben zur Verfügung:

| | Männer | Frauen | Kinder | Gesamtzahl |
|-------------------------------------|---------|--------|--------|------------|
| Gesamtzahlen der 187 Gewerkschaften | 117,587 | 27,879 | 9,603 | 155,069 |
| Gesamtzahlen der Arbeitslosen | 8,652 | 1,084 | 273 | 10,009 |
| Prozentsatz: | 7,35% | 3,88% | 2,84% | 6,45% |

Eine andere Untersuchung von 1,215 Arbeitslosen durch dasselbe Büro ergab, dass die durch Entlassung von Arbeitern verursachte Arbeitslosigkeit nicht weniger als 61,63 % betrug, während die durch freiwilliges Ausscheiden seitens der Arbeiterschaft verursachte Arbeitslosigkeit nur 17,43 % der Gesamtzahl ergab. In Bezug auf die Dauer der Arbeitslosigkeit waren 310 über ein Jahr und 321 über 6 Monate arbeitslos; diese beiden Gruppen zusammen stellen mehr als die Hälfte der Fälle dar. Die Zahl der Fälle nahm ab je kürzer die Dauer der Arbeitslosigkeit wurde; es gab nur 16 Fälle unter einem Monat.

In Peiping suchte das Büro für Soziale Angelegenheiten Schätzungen über die Zahl der Arbeitslosen von verschiedenen Handelsgilden zu erlangen, die Mitglieder der Handelskammer von Peiping sind. An Hand der so erhaltenen Angaben wurde festgestellt, dass von 91,476 Mitgliedern in 52 Gilden 29,902 oder 32,69 % während der Zeit von Juli 1928 bis Juni 1929 arbeitslos waren; der höchste Prozentsatz von Arbeitslosigkeit ist zweifellos hauptsächlich auf die Verschiebung des nationalen Kapitals von Peiping nach Nanking zurückzuführen.

In Südchina gab eine von der Provinzalregierung von Kwangtung im Frühjahr 1929 durchgeführte Nachforschung einige Statistiken über die Arbeitslosigkeit der organisierten Arbeiter in jener Provinz. Es wurde berichtet, dass von einer Gesamtzahl von 272,631 Mitgliedern der Handelsvereinigungen 20,462 oder 7,5 % zu jener Zeit arbeitslos waren.

Gleichfalls wurde berichtet, dass unter den 13 Industrien in Kanton das Transportwesen die meisten Arbeitslosen aufzu-

ARBEITSLOSIGKEIT

weisen hatte, während die Maschinenindustrie am wenigsten betroffen war. Die oben gemachten Angaben über Arbeitslosigkeit können nicht als vollständig betrachtet werden, da sie weder die unorganisierten Arbeiter noch die Arbeiter in den nicht-registrierten Gewerkschaften einschliessen.

Wir brauchen nicht erst zu sagen, wie mangelhaft die Statistiken über Arbeitslosigkeit gegenwärtig in China sind. Aber wir erfahren, dass das Stadtbüro für Soziale Angelegenheiten in Schanghai beschlossen hat, diese Statistiken in nächster Zeit systematischer aufzunehmen, und dieses Institut will einen Leitfaden darüber aufstellen, wie man Statistiken über Arbeitslosigkeit sammelt und zusammenstellt, um dadurch den hiermit Beauftragten zu helfen.

TABELLE I.

ARBEITSLOSIGKEIT UNTER DEN ORGANISIERTEN ARBEITERN IN
SCHANGHAI. Juli 1928.

| Art der Beschäftigung | Anzahl der Gewerkschaften | Anzahl der Mitglieder | Anzahl der Arbeitslosen | % |
|--------------------------------|---------------------------|-----------------------|-------------------------|-------|
| Textilien | 164 | 91.588 | 4.498 | 4,91 |
| Lebensmittel & Getränke | 15 | 12.036 | 1.388 | 11,53 |
| Baugewerbe | 9 | 5.665 | 147 | 2,59 |
| Maschinenindustrie | 28 | 11.630 | 1.334 | 11,47 |
| Transportwesen | 62 | 195.162 | 60.370 | 30,93 |
| Papier & Druckereigewerbe | 13 | 11.572 | 3.564 | 30,80 |
| Chemische Industrie | 30 | 28.043 | 2.668 | 9,51 |
| Haushaltsgegenstände | 14 | 6.538 | 197 | 3,01 |
| Handel | 20 | 9.715 | 589 | 6,06 |
| Verschiedenes | 25 | 12.302 | 829 | 6,74 |
| Gesamtsumme | 380 | 384.251 | 75.584 | 19,67 |
| Gesamtsumme (ausser Seelenten) | | 216.876 | 15.584 | 7,19 |

Nankai, Statistisches Wochenblatt, Vol. IV, No. 4

TABELLE I. (FORTSETZUNG)

ARBEITSLOSIGKEIT UNTER DEN ORGANISIERTEN ARBEITERN IN
SCHANGHAI. August 1929.

| Art der Beschäftigung | Anzahl der Gewerkschaften | Anzahl der Mitglieder | Anzahl der Arbeitslosen | % |
|--------------------------------|---------------------------|-----------------------|-------------------------|-------|
| Textilien | 51 | 43.839 | 2.121 | 4,83 |
| Lebensmittel & Getränke | 15 | 12.919 | 1.281 | 9,91 |
| Baugewerbe | 6 | 4.298 | 22 | 0,51 |
| Maschinenindustrie | 12 | 7.311 | 902 | 12,34 |
| Transportwesen | 28 | 19.541 | 2.181 | 11,16 |
| Papier & Druckereigewerbe | 12 | 11.348 | 373 | 3,29 |
| Chemische Industrie | 17 | 15.750 | 121 | 0,76 |
| Haushaltsgegenstände | 9 | 4.231 | 627 | 14,81 |
| Handel | 21 | 28.522 | 1.757 | 6,15 |
| Verschiedenes | 16 | 7.310 | 624 | 8,56 |
| Gesamtsumme | 187 | 155.069 | 10.009 | 6,45 |
| Gesamtsumme (ausser Seelenten) | | 146.380 | 8.009 | 5,47 |

Nankai, Statistisches Wochenblatt, Vol. IV, No. 4

TABELLE II. ARBEITSLOSIGKEIT IN PEIPING 1928—1929

| Geschäftszweig | Anzahl Mitglieder Juni 1928 | Anzahl Arbeitslose Juni 1928 | Prozent-satz |
|-------------------------|-----------------------------|------------------------------|--------------|
| Lebensmittel & Getränke | 27.127 | 9.768 | 36,01 |
| Bekleidungsindustrie | 21.121 | 10.459 | 49,52 |
| Metallwaren | 4.238 | 1.025 | 24,19 |
| Haushold Conveniences | 9.677 | 2.010 | 20,77 |
| Heizung und Licht | 4.945 | 1.197 | 24,20 |
| Färbereien | 12.318 | 1.867 | 15,15 |
| Verschiedenes | 10.698 | 3.439 | 32,14 |
| Läden in Haitien | 896 | 14 | 1,56 |
| Läden in Tsai-Yu | 456 | 123 | 26,97 |
| Gesamtsumme | 91.476 | 29.902 | 32,69 |

Städtische Statistik von Peiping, No. 41 en 42

TABELLE III. STATISTIK UEBER ARBEITSLOSIGKEIT DER ORGANISIERTEN ARBEITER IN KWANGTUNG 1929.

| Beschäftigungszweig | Anzahl der Gewerkschaften | Anzahl der Mitglieder | Anzahl der arbeitslosen Mitglieder | Prozent-zatz |
|--|---------------------------|-----------------------|------------------------------------|--------------|
| Transportwesen | 36 | 80.089 | 4.086 | 5,10 |
| Lebensmittel und Getränke | 29 | 19.094 | 1.364 | 7,14 |
| Bekleidungsindustrie | 21 | 6.418 | 1.512 | 23,56 |
| Webereien und Färbereien | 10 | 6.479 | 1.686 | 26,02 |
| Holz- und Bambus-industrie, Malerei | 18 | 9.128 | 2.334 | 26,57 |
| Sand- & Steinindustrie | 8 | 5.198 | 2.871 | 55,23 |
| Baugewerbe | 11 | 15.747 | 490 | 3,11 |
| Maschinenindustrie | 4 | 2.166 | 40 | 1,85 |
| Papier- & Druckerei-gewerbe | 14 | 3.853 | 980 | 25,43 |
| Hausierer | 7 | 1.586 | 253 | 15,95 |
| Barbiere | 13 | 2.483 | 261 | 10,51 |
| Artisten | 5 | 5.332 | 1.184 | 22,21 |
| Verschiedenes | 45 | 15.766 | 2.731 | 17,32 |
| Gewerkschaftszweige in der Provinz | 10 | 99.292 | 670 | 0,67 |
| Komitee für gewerkschaftliche Reorganisation | 2 | — | — | — |
| Arbeitergewerkschaft in Tanshan | 1 | — | — | — |
| Gesamtsumme | 234 | 272.631 | 20.462 | 7,51 |

Nankai. Statistisches Wochenblatt, Vol. IV, No. 4

ARBEITSLOSIGKEIT IN DEUTSCHLAND VON
PROFESSOR DR. ROBERT WILBRANDT, TECHNISCHE HOCHSCHULE
DRESDEN, UND DR. GERHARD ISENBERG, WISSENSCHAFTLICHER
ASSISTENT AM SEMINAR FUER VOLKSWIRTSCHAFT UND SOZIAL-
POLITIK AN DER TECHNISCHEN HOCHSCHULE ZU DRESDEN.

| | Page |
|---|-------|
| SYNOPSIS | „ 138 |
| ERSTER TEIL: DIE GRUNDLEGENDEN STATISTISCHEN TATSACHEN. | |
| ERSTER ABSCHNITT: DIE ZEITEN GERINGERER ARBEITS- LOSIGKEIT | „ 142 |
| ZWEITER ABSCHNITT: DIE ZEITEN HOHERER ARBEITS- LOSIGKEIT | „ 147 |
| ZWEITER TEIL: * VERSUCH EINER REKONSTRUKTION DER KAUSALKETTE BIS ZUM ZUSAMMENBRUCH 1930-1931. | |
| I. DIE ERSTE NACHKRIEGSZEIT | „ 157 |
| II. DER AUFSTIEG | „ 159 |
| III. DIE UMSCHICHTUNG DER ERWERBSTAETIGEN | „ 161 |
| IV. DIE STUETZEN FUER DIE AUFRECHTERHALTUNG DES BESCHAEFTIGUNGSGRADES 1928 UND 1929 | „ 164 |
| V. HEMMUNGEN | „ 165 |
| VI. DIE WELTWIRTSCHAFTSKRISE | „ 168 |
| VII. DIE FINANZKRISE | „ 170 |
| VIII. DIE ARBEITSLOSIGKEIT UND IHRE BEGLEITERSCHEI- NUNGEN 1930 UND 1931 | „ 172 |
| IX. ZUSAMMENFASSENDE RUECKBLICK UND AUSBLICK | „ 175 |
| ADDENDUM | |
| SYNOPSIS (texte français) | „ 182 |
| SYNOPSIS (English text) | „ 187 |

* Verfasst von Dr. Gerhard Isenberg.

SYNOPSIS

ERSTER ABSCHNITT: DIE ZEITEN GERINGER ARBEITSLOSIGKEIT

Periode: 1910-1914. Die konjunkturelle Arbeitslosigkeit ist in diesen Vorkriegsjahren gering. Nach Gewerkschaftsstatistiken bewegt sie sich zwischen 1,5 und 4,8 % der Verbandsmitglieder; bei den Angestellten beträgt sie im Jahre 1910 sogar nur 0,4 %. Die Saisonarbeitslosigkeit lässt jedoch in den Monaten Januar und Februar die Gesamtzahl der Arbeitslosen auf etwa $\frac{3}{4}$ bis 1 Million anschwellen (im Sommer 150.000—300.000). Es waren Jahre des Aufschwungs, starker Produktions- und besonders Exportsteigerung, also erhöhter Nachfrage nach Arbeitskräften. Diese übertraf das Bevölkerungswachstum. Das Gewerbe dehnte sich auf Kosten der Landwirtschaft aus. Die Nominallöhne stiegen, jedoch auch die Lebenshaltungskosten, daher die Reallöhne wohl nur gegendweise.

Periode: 1914-1918. Die bei Kriegsausbruch auf 22 % gestiegene Arbeitslosigkeit geht rasch zurück und bleibt niedrig. Die Einziehung zum Kriegsdienst verringert das Angebot an männlichen Arbeitskräften; zum Ersatz werden weibliche herangezogen, deren Zahl bis 1917 auf 115 % des Standes vom 1. 6. 1914 steigt. Die Zahl der beschäftigten Lohnarbeiter wächst in den auf Kriegsbedarf umgestellten Industrien; Textilindustrie, Industrie der Steine und Erden und Baugewerbe schrumpfen ein, stellenweise sind Textilarbeiter arbeitslos. Die Nominallöhne steigen stark in der Kriegsindustrie, sonst wenig; der Reallohn geht bei steigenden Lebensmittelpreisen z.T. erheblich zurück.

Periode: 1919-1923 (Inflation). In dieser Periode ist die Arbeitslosigkeit von stark wechselnder Höhe, aber vorwiegend gering. Sie verschwindet bei abgleitendem Wechselkurs der Mark; wird er zeitweise stabiler, so kehrt sie wieder. Eine zweite Parallele ist das Tempo der inneren Geldentwertung und damit des Geldumlaufs. Während arbeitsunfähige Alte verhungerten, bot sich allen Arbeitsfähigen Arbeitsgelegenheit;

SYNOPSIS

allerdings zuletzt nur zu bis unter die Hälfte des Vorkriegsstandes gesunkenen Reallöhnen. Staatsaufträge ("Arbeitsbeschaffung") und Demobilmachungsvorschriften, die Arbeitsstelle möglichst sichernd, sowie verminderte Leistung (durch Unterernährung, politische Unruhen und schematischen Achtstundentag) vermehren die Arbeitsgelegenheit.

| | Zahl der Beschäftigten | |
|---|------------------------|--------------|
| | Vorkriegsstand | Jahr 1921/22 |
| Kohlenbergbau | 918.000 | 1.212.000 |
| Metallindustrie | 1.596.000 | 1.975.000 |
| Reichsbahn | 700.000 | 1.100.000 |
| (bei um $\frac{1}{2}$ verringerter Verkehrsleistung). | | |

Im Ganzen: ein gewisser Leerlauf, die Arbeitskräfte werden mitgeschleppt, die Produktion bleibt gering, Import und Export sind stark reduziert.

ZWEITER ABSCHNITT: DIE ZEITEN ERHÖHTER ARBEITSLOSIGKEIT.
 Periode: 1923-24. Die Zahl der Arbeitslosen steigt Ende 1923, mit der Stabilisierung der Mark, auf 3-4 Mill. (28 % der Gewerkschaftsmitglieder). Die Inflationsperiode hinterlässt das Trümmerfeld des Ruhrkampfes und, als dies geordnet und daher die Arbeitslosigkeit abgeflaut ist, ein Bedürfnis nach Wiederherstellung der verloren gegangenen Konkurrenzfähigkeit auf dem Weltmarkt. So lange es nicht erfüllt ist, treibt der Devisenmangel zur Kreditrestriktion und damit zu neuer Arbeitslosigkeit hin.

Periode: 1924-26. Nachdem der Zinsfuß auf 40 % mehr emporgeschneit war, als Ausdruck des Kapitalmangels nach der Inflation, ergab das Inkrafttreten des Dawesplans Kreditmöglichkeiten und damit einen Rückgang der Arbeitslosigkeit auf Vorkriegsstand; sie betrug Juni 1925 nur 3,4 %. Die "Reinigungskrise", Herbst 1925, merzt die nun lebensunfähigen Inflationsgründungen aus und treibt die Arbeitslosigkeit wieder

SYNOPSIS

empor (Dezember 1925: 20 %). Sie bleibt 1926 auf 18 %, trotz öffentlicher Aufträge.

D a s J a h r 1927. Auslandsanleihen erleichtern einen nicht nur durch öffentlichen Wohnungsbau, sondern auch durch Rationalisierung hervorgerufenen Gesamtaufschwung, der von der Kapitalgüterherstellung ausgeht, auch die Konsumgüterindustrie ergreift und von da aus wieder die zugehörigen Produktionsmittelindustrieen belebt. Die Gesamtzahl der Arbeitsuchenden sinkt von 2,5 Mill. im Januar auf den Tiefpunkt von 870.000 im Herbst 1927.

P e r i o d e : 1928-29. Durch Kapitalmangel gehemmt, tritt innerhalb der bis Mitte 1929 noch etwas wachsenden Produktion die Kapitalgüterherstellung zurück. Öffentlich unterstützter Wohnungsbau mildert den Konjunkturrückgang. Doch haben die rationalisierten Betriebe geringeren Arbeitsbedarf. Die Sommerzahlen der Arbeitslosigkeit steigen, parallel den Konkursen, von 5,8 % im Jahre 1927 auf 10 % im Jahre 1929.

DRITTER ABSCHNITT. DIE PERIODE 1930-31.

V o r g e s c h i c h t e. Die Arbeitslosigkeit, seit 1924 wesentlich höher als in der Vorkriegszeit, beträgt 1928 und 1929 selbst im Juli 1 Million. Sie ruft - durch Verminderung der Kaufkraft um etwa 1000 RM auf den Arbeitslosen eine sekundäre Arbeitslosigkeit hervor. Auslandsanleihen hören seit 1929 auf, die Kapitalgüterindustrie zu beleben.

Als Gegengewicht wirken in den Jahren 1928 und 1929:

(a) Wohnungsbau, sowie überhaupt Hoch- und Tiefbau öffentlich unterstützt;

(b) starker Konsum, ermöglicht durch steigende Reallöhne - bei den gelernten Arbeitern auf Vorkriegsstand, bei den ungelerten noch um 20 % höher - und Beamtengehaltserhöhung;

(c) Exportsteigerung, bis auf Vorkriegsstand im Jahre 1929 (unter Berücksichtigung der Geldentwertung).

Der Zusammenbruch.

(a) Innen: Staats- und Gemeindefinanzen, belastet durch Reparationen, hohe Personal- und steigende Sozialausgaben (Arbeitslose!) und geschwächt durch verringerte Einnahmen aus Steuern und öffentlichen Betrieben (Geschäftsstockung) versagen; Rückgang der Bautätigkeit von 9 Milliarden RM im Jahre 1929 auf vermutlich kaum mehr als 5 Milliarden im Jahre 1931, während die Bauarbeiterzahl von 1,2 im Jahre 1924 auf 1,9 Mill. im Jahre 1929 anwuchs.

(b) Weltwirtschaftskrise: Der Rohstoffpreissturz erschüttert das Kalkulationsgebäude. Der Export, hauptsächlich nach Europa gerichtet, sinkt relativ wenig, genügt aber nun vollends nicht zur Ausnutzung der mit Auslandsanleihen erweiterten, auf Export angewiesenen Produktionsanlagen.

(c) Gesamtergebnis: Anschwellen der Arbeitslosigkeit auf 3,2 Mill. im Jahre 1930, auf 5 Mill. Anfang 1931 (im Frühjahr, Saisonbelegung: 4,3).

Erschwerende Umstände.

(a) Erstarrung: Weithin gebundene Preise und Löhne; Kapitalmarkt; Zinsfuß selbst in der Depression über 8 %.

(b) Vertrauenskrise: Lähmung durch politische Befürchtungen und wirtschaftliche Erwartungen; Kapitalflucht.

(c) Die deutsche Zahlungsbilanz: mit durchschnittlich 2 Milliarden Mark Reparationen und annähernd eineinhalb Mill. Mark Verzinsung der Auslandsanleihen belastet, verlangt sie einen Ausfuhrüberschuss von etwa $3\frac{1}{2}$ Milliarden M., wie er durch Weltrohstoffpreissenkung und verminderte Einfuhr, mittels Produktionseinschränkung, also: durch Arbeitslosigkeit, 1930 zustandegekommen ist; Rückgang der Arbeitslosigkeit würde vermehrten Konsum, also vermehrte Einfuhr, also ceteris paribus Devisenmangel bewirken, mithin wieder Kreditrestriktion, also erneuerte Produktionseinschränkung und Arbeitslosigkeit.

ERSTER TEIL: DIE GRUNDLEGENDEN STATISTISCHEN TATSACHEN.

ERSTER ABSCHNITT: DIE ZEITEN GERINGERER ARBEITSLOSIGKEIT.

Periode 1910-1914. Die Höhe der Arbeitslosigkeit bewegt sich in diesen Vorkriegsjahren nach den Gewerkschaftsziffern zwischen 1.5 und 4.8 % der Verbandsmitglieder (wobei die saisonbedingte Arbeitslosigkeit kaum zum Ausdruck kommt). Ziehen wir zur Ergänzung die Beschäftigungsziffern der Krankenkassen heran, so können wir auch die Saisonarbeitslosigkeit erfassen; durch diese schwillt die Gesamtarbeitslosigkeit in den Monaten Januar und Februar auf $\frac{3}{4}$ bis 1 Million Arbeitslose an. Im Sommer ist sie auf etwa 150,000 zu schätzen (im Jahre 1913 auf etwa 2-300,000). Ausserordentlich niedrig war die Arbeitslosigkeit bei den Angestellten: 0.4 % im Jahre 1910. Deutschland befand sich nach der Krise von 1907 und der Depression von 1908 in einem starken Aufschwung, der 1913 sich nicht weiter fortsetzte.

In den Jahren 1910-1913 erhöht sich die Produktion bei Roheisen von 14.8 auf 19.3, bei Steinkohle von 153 auf 190 Millionen Tonnen jährlich. Der Export steigt jährlich um durchschnittlich etwa 800,000,000 M, im Ganzen 1910-13 um 2.3 Milliarden Mark. Die Steigerung der Leistung je Schicht und Kopf beträgt im Steinkohlenbergbau etwa 8 %: im Uebrigen fehlt es da an ausreichendem Material.

Nach der Statistik der Berufsgenossenschaften steigt der durchschnittliche Jahresverdienst eines Vollarbeiters in den Jahren 1910-1913 von 1108 auf 1915 M; eine besonders hohe Steigerung zeigt der Hauerlohn im Ruhrbergbau: von 4.48 M je Schicht im ersten Quartal 1910 hebt er sich bis zum 3. Quartal 1913 auf 5.42, fällt dann 1914 auf 5.22 M. Die Lebensmittelkosten steigen (vor allem bei Fleisch) 1910-1913 um etwa 10 %, sinken dann etwas. Ob die beim Hauerlohn sich trotzdem zeigende Steigerung des Reallohns eine allgemeine gewesen sei, ist sehr zweifelhaft.

Die Bevölkerung wächst von 1907-1913 um 8 %, der Arbeitsmarkt nimmt diesen Zuwachs auf, ja mehr als das: es beträgt nach der Berufsgenossenschaftsstatistik der Zuwachs an gewerblichen

DEUTSCHLAND

Arbeitern 14 %, in Betrieben mit mehr als 10 Arbeitern nach den Statistiken der Gewerbeaufsichtsbeamten sogar 20 %; unter Ausschaltung des Volkszuwachses, also wesentlich im Sinne einer Wanderung vom Land in die Industrie, ergibt endlich die Krankenkassenstatistik ein Anwachsen der Zahl der männlichen beschäftigten Mitglieder um 10 %.

Besonders starken Zuwachs an Arbeitern haben nach der Statistik der Berufsgenossenschaften Bergbau, Eisen- und Metallgewerbe, Feinmechanik und Chemie.

Im Ganzen zeigt sich eine starke Aufnahmefähigkeit des Gewerbes für den Zuwachs an Arbeitskräften: der Bedarf des Gewerbes nach Arbeitskräften war stärker als der Bevölkerungszuwachs.

Periode: 1914-1918. Bei Kriegsausbruch schnellt die Arbeitslosigkeit auf eine bis dahin noch nicht bekannte Höhe; 22 % der Gewerkschaftsmitglieder sind arbeitslos im August 1914. Dies ist zurückzuführen auf die plötzliche Stockung des Wirtschaftslebens und im besonderen auf den Verlust der Exportmärkte, die Unterbrechung des Rohstoffbezugs aus dem Auslande, die Einschränkung von Luxusbedürfnissen, das Aufhören der Bautätigkeit. Aber schon nach 2 Monaten geht die Arbeitslosigkeit stark zurück und im weiteren Verlauf des Kriegs bleibt die Arbeitslosigkeit auf einem sehr niederen Stand.

Die Gestaltung der Arbeitsmarktverhältnisse ist aus Folgendem ersichtlich: Die Zahl der männlichen Beschäftigten geht nach der Statistik der Krankenkassen auf etwa 60 % vom Stand am 1. Juni 1914 zurück als Folge der Einziehungen zum Heeresdienst. Dem verringerten Angebot steht eine gesteigerte Nachfrage nach Arbeitskräften gegenüber für die Herstellung von Kriegsmaterial, für die Erzeugung von Ersatzstoffen zum Ausgleich der fehlenden ausländischen Rohmaterialien; je länger der Krieg dauert, desto stärker muss auf weibliche Arbeitskräfte zurückgegriffen werden. Im Juni 1917 beträgt die Zahl der weiblichen Beschäftigten nach der Krankenkassenstatistik 115 % vom Stand am 1. Juni 1914. Der Mangel an männlichen Arbeitskräften zeigt sich daran, dass auf 100 offene Stellen nur etwa 50 Arbeitsgesuche kommen während der Sommermonate der Jahre 1917 und 1918.

Wir stellen eine grundlegende Umschichtung in der Verteilung

ARBEITSLOSIGKEIT

der Beschäftigten auf die einzelnen Wirtschaftszweige fest: Stark zurückgegangen ist die Beschäftigtenzahl in den Wirtschaftszweigen, die wesentlich auf eine Verarbeitung von ausländischem Rohmaterial oder auf den Absatz ihrer Produkte im Ausland angewiesen sind, ferner in denen, die für den weniger dringlichen Bedarf arbeiten oder mit der Erstellung dauerhafter Nutzungsgüter wie Häuser beschäftigt sind.

Nach der Statistik der Berufsgenossenschaften beträgt die Zahl der beschäftigten Arbeiter:

| | 1913 | 1917 |
|---|-----------|---------|
| in der Textilindustrie | 963,000 | 436,000 |
| in der Industrie der Steine und Erden.. | 535,000 | 213,000 |
| im Baugewerbe | 1,216,000 | 505,000 |

Der geringe Beschäftigungsgrad in der Textilindustrie ist in den Gegenden, wo nur wenige Möglichkeiten zum Uebergang in andere Industriezweige bestehen, so gross, dass dort, trotz der allgemein günstigen Arbeitsmarktlage im Reich, eine partielle Arbeitslosigkeit entsteht; im 1. Vierteljahr 1918 sind 5.6 % der Textilarbeiter arbeitslos.

Die nur für die Herstellung von Kriegsmaterial oder für den dringlichen Lebensbedarf arbeitenden Wirtschaftszweige weisen eine annähernd gleichbleibende oder sogar steigende Zahl von Beschäftigten auf, wie es wiederum aus der Statistik der Berufsgenossenschaften ersichtlich ist:

| | 1913 | 1917 |
|------------------------------------|-----------|-----------|
| Metallindustrie | 1,596,000 | 1,617,000 |
| Chemische Industrie | 277,000 | 293,000 |
| Gas, Wasser und Elektrizität | 76,000 | 63,000 |

Der Mangel an geübten männlichen Arbeitskräften, an Rohstoffen, an Verkehrsmitteln führt zu einem empfindlichen Rückgang der Produktion und der zum Verbrauch verfügbaren Mengen.

Trotz einer Steigerung der Nominallöhne, die in den einzelnen Wirtschaftszweigen sehr ungleich verläuft, hat zum Teil ein erheblicher Rückgang der Reallöhne stattgefunden, der sich aller-

dings mangels genügender statistischer Unterlagen nicht zahlenmässig ausdrücken lässt.

Periode 1918-1923. In dieser Periode ist die Arbeitslosigkeit von stark wechselnder Höhe, aber vorwiegend gering. Diese paradoxe Erscheinung, eine scheinbar besonders günstige Lage nach dem Kriege, könnte schlechthin als "Prosperität" gedeutet werden; eine leicht irreführende Scheinblüte, die nur unter Beachtung aller Begleitumstände richtig verstanden werden kann.

Parallelerscheinungen sind:

(1) der Stand des Wechselkurses: als in den Jahren 1920/21 der innere Geldwert $1/10$, der Wechselkurs auf $1/13$ gesunken ist, aber beide relativ stabil sind, ist die Arbeitslosigkeit relativ gross, im ganzen 6 %, bei den weiblichen sogar 10 % der Verbandmitglieder; in der zweiten Hälfte des Jahres 1921 verringert sich die Arbeitslosigkeit, ja 1922 verschwindet sie, parallel mit der Abgleitung des Wechselkurses. Als endlich 1923 der Wechselkurs eine Zeitlang stabil bleibt, schwillt die Arbeitslosigkeit wieder an;

(2) die Steigerung der formalen Kaufkraft in einem Teil der Bevölkerung, durch die Inflation (im Gegensatz zu den Rentnern, die in erheblicher Zahl buchstäblich verhungerten): sie führte im Verein mit den sprunghaft sich steigernden Preisen, die zu raschen Käufen drängten, zu gesteigerter Nachfrage und damit zu vermehrter Arbeitsgelegenheit. Zeitweise kommt es zu Stockungen; die innere Kaufkraft vermag den Preissteigerungen, wie sie infolge Verschlechterung des Wechselkurses bei Produkten mit eingeführten Rohstoffen entstehen, nicht mehr zu folgen, es wird wirtschaftlich unmöglich, die erforderlichen Rohstoffe einzuführen, Rohstoffmangel führt neben dem Kohlenmangel zur Produktionseinschränkung;

(3) Im Jahre 1923 bringt der Ruhreinbruch Störungen der Produktion mit sich (Kohlenmangel, teure Importkohle als Ersatz der Ruhrkohle); während er andererseits die Kursstürze des Wechselkurses beschleunigt, die Ausfuhr mithin erleichtert, also vorübergehend Arbeitsgelegenheit schafft;

(4) Staatsaufträge („Arbeitsbeschaffung“), Demobilisierungsvorschriften (Zwang zur Einstellung von Arbeitskräften und Er-

ARBEITSLOSIGKEIT

schwerung der Stilllegung von Betrieben), sowie sozialpolitische Neuerungen (Achtstundentag, erst allmählich mittels Ausnahmebestimmungen durchgeführt), vermehren die Arbeitsgelegenheit; (5) Die verringerte Ergiebigkeit der Arbeit lässt den "Warenhunger" nur mittels vermehrter Einstellung von Arbeitskräften zur Befriedigung gelangen. So schwillt im Kohlenbergbau die Zahl der Beschäftigten im Jahre 1921 auf 1,212,000 an, gegen 918,000 in der Vorkriegszeit; im Jahre 1922 beschäftigt die Metallindustrie 1,975,000 Personen, gegen 1,596,000 vor dem Kriege, die Reichsbahn bewältigt eine um $\frac{1}{3}$ verringerte Verkehrsleistung mit einem um 50 % erhöhten Personalbestand (1,100,000 statt 700,000), auch die Post beschäftigt um 50 % mehr Arbeitskräfte. Im Ganzen: ein gewisser Leerlauf, bei dem die Arbeitskräfte mitgeschleppt werden, ohne die Produktion entsprechend zu steigern; in andern Zweigen wird der Vorkriegsbestand noch nicht wieder erreicht, Import und Export sind stark reduziert.

Die Produktion ist gering. Als Beispiele: der Ertrag an Brotgetreide beträgt in den Jahren 1911-1913 je ha 19.4, dagegen in den Jahren 1920-1925 nur 15.2 Dz; im Jahre 1921 beträgt die Roheisenproduktion 7.9 Mill.t gegen 19.3 Mill.t vor dem Kriege; die Gesamtkohlenförderung 164 Mill.t (wovon noch etwa 20 Mill.t Reparationskohle dem inländischen Verbrauch entzogen werden) gegen 209 Mill.t im Jahre 1913, die Baumwolleinfuhr netto 237,000 t, im Jahre 1913 hatte sie 486,000 t betragen.

Die verringerte Leistung je Arbeitskraft ist aus den bei der Betrachtung des Beschäftigungsgrades unter (4) gegebenen Zahlenbeispielen bereits ersichtlich; für die Steinkohlenförderung wird die Leistung des Bergarbeiters im Jahre 1921 auf 67 % der Leistung von 1913 angegeben.

Die Nominallöhne steigen in der Berichtsperiode rasch, bei den ungelernten Arbeitern besonders; die allgemeine Preissteigerung aber - für die einzelnen Warengattungen sehr verschieden, doch im weiteren Verlauf der Inflation im Ganzen der Lohnerrhöhung voraneilend - lässt es auf die Dauer zu einer Reallohnsteigerung nicht kommen. Die Reallöhne sinken schliesslich monatweise bis auf etwa 40 % der Vorkriegeshöhe (gelernte Arbeiter), ja wochenweise zuweilen noch viel tiefer.

ZWEITER ABSCHNITT: DIE ZEITEN HÖHERER ARBEITSLOSIGKEIT.

A. ALLGEMEINER VERLAUF DER ARBEITSLOSIGKEIT UND DER KONJUNKTUR, 1924-1929.

Periode: Von der Rentenmark bis zum Inkrafttreten des Dawesplans. Mit dem Aufhören der Inflation stieg die Arbeitslosigkeit auf eine noch nie dagewesene Höhe. Ende Dezember 1923 waren 28,2 % der Gewerkschaftsmitglieder arbeitslos; bei den Arbeitsnachweisen im unbesetzten Gebiet waren 2,2 Millionen verfügbare Arbeitsuchende gemeldet, davon wurden 1,5 Mill. unterstützt. Wesentlich grösser war die Arbeitslosigkeit im besetzten Gebiet, eine Folge der durch den Ruhrkampf hervorgerufenen Störungen des Wirtschaftslebens, insbesondere des Verkehrs. Eine amtliche Denkschrift schätzte um die Jahreswende 1923-1924 die Zahl der Arbeitslosen im besetzten Gebiet auf 2 Millionen bei 10 Millionen Einwohnern. Auch wenn diese Zahl zu hoch gegriffen sein sollte, so wird die Arbeitslosigkeit im ganzen Reich 3-4 Millionen erreicht haben.

Ungewöhnlich stark verbreitet war die Kurzarbeit. Die Arbeitslosigkeit hat erst im Dezember 1923 ihren Höhepunkt erreicht, die Kurzarbeit schon im November mit 47,3 % der Gewerkschaftsmitglieder, bei den weiblichen Gewerkschaftsmitgliedern sogar schon im Oktober mit 51,8 %. Die Arbeitslosigkeit konnte sich erst voll auswirken, nachdem die Befristung für die damals massenweise beantragten Stilllegungen von Betrieben abgelaufen war und damit die Entlassungen der bis dahin verkürzt Arbeitenden durchgeführt werden konnten.

Dass schon kurz nach der Jahreswende eine Besserung der Wirtschaftslage eingetreten war, geht aus der rasch abnehmenden Zahl der Arbeitslosen in den nicht saisonbedingten Berufsgruppen hervor: von 19,5 % der Mitglieder im Januar sank sie auf 18,8 % im Februar, auf 13,1 % im März. Dasselbe ergibt sich aus dem Rückgang an verfügbaren Arbeitsuchenden. Nach der Schätzung des Institutes für Konjunkturforschung betrug die Zahl der Arbeitslosen Ende April 1924 nur 700,000. Die erstaunlich rasche Besserung des Arbeitsmarktes ging parallel mit einer Ausweitung der Geschäftstätigkeit, die ihrerseits wiederum er-

ARBEITSLOSIGKEIT

möglichst war durch die Ausweitung des fast bis auf ein Nichts zusammengeschrumpften Kreditvolumens und durch die Beruhigung der politischen Verhältnisse im besetzten Gebiet.

Die starke Nachfrage nach ausländischen Rohstoffen und Fertigwaren zur Auffüllung der geleerten Lager und zur Befriedigung eines lang zurückgehaltenen Bedarfs führte zu einer Steigerung der Nachfrage nach Devisen, der auf der anderen Seite infolge der noch darniederliegenden Exporttätigkeit kein genügendes Angebot gegenüberstand. Die im Interesse der Aufrechterhaltung der Währung notwendige Kreditrestriktion führte wiederum zu einer Einschränkung der geschäftlichen Tätigkeit, zu mannigfachen Zusammenbrüchen und zu einer Steigerung der Arbeitslosigkeit. Die Zahl der Vollarbeitslosen (Arbeitslose und auf Arbeitslose umgerechnete Kurzarbeiter) erhöhte sich von dem Tiefpunkt im Mai 1924 mit 11,3 % der Gewerkschaftsmitglieder auf 17 % im Juni, 22 % im Juli.

Periode: Vom September 1924 bis zum Ende der Depression von 1926. Mit der Regelung der Reparationen im August 1924 wurde die Aufnahme von Auslandsanleihen möglich. Der damit gegebene Rückhalt ermöglichte es auch, das Kreditvolumen in Deutschland selbst stark zu erweitern, unter für den Kreditnehmer günstiger werdenden Bedingungen. Durch beides konnte der ausserordentlich dringliche Bedarf an langfristigem und kurzfristigem Kapital, der sich bis dahin in einem Zinsfuss von 40 % und mehr äusserte, bis zu einem gewissen Grade befriedigt werden.

Vom September 1924 ging die Arbeitslosigkeit zurück. Im Winter 1924 auf 1925 wird die Arbeitslosigkeit kaum mehr als in einem normalen Vorkriegswinter betragen haben (etwa 822,000 verfügbare Arbeitssuchende im Februar 1925). Die Arbeitslosigkeit in den von der Saison beeinflussten Berufsgruppen der Gewerkschaften betrug im Februar 1925 nur 18,7 % während in der Vorkriegszeit eine stärkere Saisonarbeitslosigkeit üblich war. Die niedrige Saisonarbeitslosigkeit war ein Zeichen einer besonders günstigen Konjunktur und eines besonders dringlichen Bedarfs, bei dem Aussenarbeiten trotz der ungünstigen Witterungs-

verhältnisse durchgeführt wurden.

Im weiteren Verlauf des Jahres 1925 liess die intensive Wiederaufnahme der Bautätigkeit einen erheblichen Mangel an Facharbeitern im Baugewerbe entstehen.

Die gesamte Arbeitslosigkeit erreichte im Juni 1925 ihren Tiefpunkt mit 3.4 % der Gewerkschaftsmitglieder, 450,000 Arbeitssuchenden und 195,000 unterstützten Arbeitslosen.

Aber schon im Hochsommer setzte eine Verschlechterung der Konjunktur ein. Der Eingang der Zahlungen verschlechterte sich, im September nahmen die Konkurse zu und im Spätherbst kommt es zu einer ausserordentlich scharfen Krise, der sogenannten Reinigungskrise. Zwei Drittel der Zusammenbrüche erfolgte bei Unternehmungen, die nach 1919 entstanden waren. Es handelt sich vorwiegend um den Zusammenbruch von während der Inflation gegründeten Unternehmungen, die nur bei starkem Warenhunger, freigebiger Kreditwährung mit Zurückzahlung in entwertetem Gelde und in Gold gerechnet niederen Gesteungskosten lebensfähig waren. Dass der Zusammenbruch dieser Unternehmungen nicht unmittelbar nach der Stabilisierung erfolgte, liegt daran, dass die geringe Geldverschuldung nach der Inflation und die starke Kreditausweitung sowie die relativ günstige Konjunktur im Herbst 1924 bis Sommer 1925 ihnen noch eine gewisse Lebensfrist beliess.

Auf dem Arbeitsmarkt äusserte sich die Verschlechterung der Konjunktur zuerst in einer Zunahme der Kurzarbeiter, während die Arbeitslosigkeit noch bis Oktober 1925 auf einem sehr geringen Stande verblieb. Erst im Dezember stieg die Arbeitslosigkeit auf annähernd 20 % der Gewerkschaftsmitglieder einschl. der Saisonarbeiter. Im März 1926 erreichte die Arbeitslosigkeit in der Konjunkturgruppe * ihren Höhepunkt mit 19.7 %. Die Schärfe der Krise mit ihren vielen Zusammenbrüchen und Liquidationen von Warenvorräten unter beträchtlicher Preissenkung führte auch zu einer verhältnismässig raschen Entspannung. Schon im Frühjahr 1926 verflüssigte sich der Geldmarkt und der Kapitalmarkt, was zum ersten Mal die Unterbringung von grös-

* Anmerkung: In der Konjunkturgruppe sind alle diejenigen Fachverbände zusammengefasst, deren Beschäftigung nur wenig oder garnicht von der winterlichen Witterung beeinflusst ist.

ARBEITSLOSIGKEIT

seren Emissionen im Inland ermöglichte. Der Reichsbankdiskont, der im Jahre 1925 auf 9 % gestanden hatte, konnte schrittweise auf 6 % gesenkt werden. Auch hatte die öffentliche Hand erhebliche Ueberschüsse und Reserven angesammelt, die jetzt zu Notstandsarbeiten verwendet werden konnten. Dies brachte schon eine gewisse Besserung der Arbeitsverhältnisse mit sich, allerdings bleibt die Arbeitslosigkeit dabei noch auf einem verhältnismässig hohen Stand, 18,2 %. Eine Belebung brachte auch der englische Kohlenbergarbeiterstreik.

Periode: Der Aufschwung 1927. Die Arbeitslosigkeit in der Konjunkturgruppe geht im Winter 1926-27 weiter zurück, während die Saisonarbeitslosigkeit noch einmal im Januar 1927 40 % erreicht und die Gesamtzahl der Arbeitslosen auf 2.5 Millionen steigt, also auf die Höhe des Vorjahres; hingegen beträgt die Kurzarbeit nur 6.4 % gegenüber 22 % Anfang 1926.

Zahlreiche Emissionen, das Hereinströmen von Auslandskapital, ein verhältnismässig niedriger Zinsfuss für langfristiges Kapital - die Nettokosten für erststellige Hypotheken betragen im zweiten Vierteljahr 1927 8.08 % und haben damit den tiefsten Punkt im Zeitraum von 1924-1930 erreicht - ermöglichten eine starke Erweiterung des Produktionsapparates und die intensive Inangriffnahme des Wohnungsbaues. In vielen Fällen reichen die Arbeitskräfte, ähnlich wie im Jahre 1925, im Baugewerbe nicht aus, um alle Ansprüche zu erfüllen. Mit besonderer Intensität wird die Umstellung des Produktionsapparates auf moderne Produktionsmethoden durchgeführt (Rationalisierung), sodass sich die Produktionsmittel-Industriellen, insbesondere der Maschinenbau, in einer günstigen Geschäftslage befinden. Wie rasch der Aufschwung vor sich ging, zeigt sich im Steigen des arbeitstäglichen Versandes von Maschinen von 72.7 im ersten Vierteljahr auf 101 im vierten Vierteljahr 1927 (1928 = 100). So geht die Arbeitslosigkeit schnell zurück und erreicht im Herbst 1927 mit 4.3 % Erwerbslosen der Gewerkschaftsmitglieder den tiefsten Punkt; sie hat ihn seither nie wieder erreicht.

Das Steigen des Masseneinkommens und der Nachfrage nach Konsumgütern des periodischen Bedarfs, der in der Depression

DEUTSCHLAND

1926 zurückgestellt werden musste, wirkt sich in den Konsumgüterindustrien günstig aus, insbesondere in der Textilindustrie. Nur 2,4 % der Textilarbeiter sind im Oktober arbeitslos. Vielfach wird über den Mangel an Facharbeitern geklagt.

Periode: 1928-1929.

Der rasche Aufschwung von 1927 wird aber bald durch den wieder einsetzenden Kapitalmangel behindert. Der Zinssatz steigt schon vom zweiten Vierteljahr 1927 an. Von da ab sind auch Emissionen schwer unterzubringen. Dies sind Anzeichen, dass nicht mehr mit einer Steigerung der Beschäftigung in den Produktionsgüterindustrien zu rechnen ist. Zwar steigert sich im Jahre 1928 und in der ersten Hälfte des Jahres 1929 noch die Produktion. Im Januar 1929 erreicht der Produktionsindex seinen Höhepunkt, aber die industrielle Bautätigkeit und der Versand von Maschinen ins Inland lässt schon frühzeitig nach. Die Produktion findet in steigendem Masse ihren Absatz im Ausland. Die Expansion des Wohnungsbaues, die durch öffentliche Mittel gefördert wird, lässt die seit 1927 eintretende Verschlechterung der Konjunktur in den Produktionsziffern noch nicht zum Ausdruck kommen. Bei zunehmender Produktion geht aber die Beschäftigung zurück, die Konkurse steigen, der Kapitalmangel führt zu höheren Sätzen auf dem Hypothekenmarkt.

Die konjunkturelle Arbeitslosigkeit steigt vom Oktober 1927 an langsam aber stetig; abgesehen von dem Rückgang im Frühjahr 1929, der aber nur als ein Reflex der Saisonbewegung betrachtet werden kann. Die steigende Produktion kann - eine Folge des Rationalisierungsprozesses von 1927-1929 - mit einer geringeren Zahl von Arbeitskräften bewältigt werden. Die folgende Tabelle, die Zahlen jeweils des dritten Vierteljahres von 1927-1930 zur Darstellung bringt, zeigt die gegensätzliche Entwicklung von Produktion und Umsätzen einerseits, von Beschäftigung, Kredit-sicherheit und Bewertung der Unternehmungen andererseits. Auf das Jahr 1930 werden wir noch besonders eingehen.

ARBEITSLOSIGKEIT

TABELLE I.

DIE GEGENSÄTZLICHE ENTWICKLUNG VOR DER KRISE VON 1930.

| | Monatsdurchschnitt im 3. Vierteljahr | | | | |
|--|--------------------------------------|-------|-------|------|---------------------------|
| | 1927 | 1928 | 1929 | 1930 | |
| Verbesserung | | | | | |
| Indexziffer der Produktion | 101.7 | 103 | 103.1 | 81.9 | (1928, ganzes Jahr — 100) |
| Wagenstellung der Reichsbahn | 401.7 | 401.2 | 412.7 | 342 | (in Tausend) |
| Abrechnungsstellen der Reichsbank | 52.2 | 58.3 | 63.5 | 59.9 | (Milliarden Mark) |
| Export von Fertigwaren | 635 | 777 | 858 | 736 | (Millionen Mark) |
| Verschlechterung | | | | | |
| Aktienindex | 172 | 163 | 149 | 122 | (1924/26 - 100) |
| Konkurse | 398 | 579 | 749 | 882 | (Anzahl) |
| Vollarbeitslose in % der Gewerkschaftsmitglieder | 5.8 | 7.7 | 10.1 | 23.4 | % |
| Nettokosten für erststellige Hypotheken | 8.19 | 9.38 | 10.08 | 8.70 | % |

Abgesehen von den Sommermonaten 1925 und 1927 liegt die Arbeitslosigkeit seit der Stabilisierung wesentlich höher als in der Vorkriegszeit. In den beiden Jahren 1928 und 1929 ist die Zahl der verfügbaren Arbeitsuchenden auch im Sommer höher als 1 Million: im Juli 1928, 1,045 Millionen; im Juli 1929, 1.25 Millionen. Auch die Andrangsziffern¹ liegen bedeutend höher als in der Vorkriegszeit. Dies ist ein Zeichen, dass sich die Bedingungen des Arbeitsmarktes grundlegend verändert haben. Man wird von einer gewissen strukturellen Arbeitslosigkeit reden müssen, die besonders stark bei älteren Arbeitnehmern hervortritt.

B. EINZELNE BESONDERHEITEN.

Saisonarbeitslosigkeit. Bei der Betrachtung der Arbeitslosigkeit der Gewerkschaften wird auffallen, dass die zusätzliche Arbeitslosigkeit im Winter (Saisonarbeitslosigkeit) wesentlich grösser ist als in der Vorkriegszeit. Dies liegt aber an der Art der Erhebung. In der Vorkriegszeit waren die von der Saisonarbeitslosigkeit besonders stark betroffenen Arbeiter des Baugewerbes noch gar nicht bzw. nur zu 1 % in dem von der

¹ Die Zahl der Arbeitsgesuche auf 100 offene Stellen.

DEUTSCHLAND

Arbeitslosenstatistik der Gewerkschaften erfassten Mitgliederbestand enthalten, während der tatsächliche Anteil nach der Berufszählung etwa 20 % ausmacht. Besondere Berechnungen, bei denen die Krankenkassenstatistik mit der Gewerkschaftsstatistik kombiniert ist, zeigen, dass auch in der Vorkriegszeit eine erhebliche Saisonarbeitslosigkeit bestanden haben muss. Nach den Angaben der Verbände des Baugewerbes wird in den Monaten Januar und Februar eine Saisonarbeitslosigkeit von 30-40 % die Regel gewesen sein. Das ist ein Prozentsatz, der der Saisonarbeitslosigkeit in den Jahren 1927-1928 etwa entsprechen würde. Die Arbeitslosigkeit in der Saisongruppe - das heisst in den Aussenberufen - erreicht im Februar 1929 wegen der anormalen Witterung die Höhe von 68 %. Die gesamte Arbeitslosigkeit wird daher höher als im Krisenwinter 1925-1926: 3.2 Millionen, gegenüber 2.5 Millionen. Im Sommer 1929 geht die Arbeitslosigkeit trotz der Konjunkturverschlechterung verhältnismässig stark zurück, da sich die Aussenarbeiten auf eine kurze Zeit zusammendrängen und so eine grössere Zahl von Arbeitskräften erfordern, als bei normalen Witterungsverhältnissen notwendig gewesen wäre.

Arbeitslosigkeit in den einzelnen Berufszweigen. Die Arbeitslosigkeit ist in den einzelnen Berufszweigen sehr ungleich. Im Bergbau besteht eine sehr geringe Arbeitslosigkeit. Teilweise bestand ein Mangel an Arbeitskräften, der nur durch Zulassung von Ausländern behoben werden konnte. Die Arbeitslosenziffern betragen 1-3 %.

Uneinheitlich ist die Arbeitsmarktlage in der Textilindustrie. Einzelne Zweige haben von 1927 ab eine besonders hohe Arbeitslosigkeit zu verzeichnen, z.B. die Leinenindustrie, während die Wirkwarenindustrie sich eines Beschäftigungsgrades erfreut, der über dem Durchschnitt der Textilindustrie steht. Besonders stark ist in der Textilindustrie die Kurzarbeit, was zur Folge hat, dass auch bei schlechtem Geschäftsgang die Arbeitslosigkeit nicht so stark hervortritt. Mit der Ausweitung des Konsums konnte die Zahl der Beschäftigten in der Textilindustrie 1929 gegenüber 1924 um etwa 10 % gesteigert werden.

Im Baugewerbe bestand 1925 und 1927, wie schon hervorgehoben,

ARBEITSLOSIGKEIT

ein starker Mangel an Facharbeitern, der darauf zurückzuführen ist, dass während der Inflation bei der verhältnismässig geringen Bautätigkeit nicht genügend Nachwuchs ausgebildet worden war. Der Zudrang zum Baugewerbe ist jedoch in den folgenden Jahren so stark, dass trotz der Ausbreitung des Produktionsvolumens auch während der Saison der Prozentsatz der Arbeitslosigkeit gestiegen ist.

TABELLE II. ENTWICKLUNG VON ARBEITSLOSIGKEIT UND BESCHAFTIGUNG IM BAUGEWERBE.

| | Arbeitslose Bauarbeiter in % der Gewerkschaftsmitglieder | In den Berufsgenossenschaften versicherte Personen im Baugewerbe |
|--------------|--|--|
| im Juni 1924 | 10.6 | 1245 |
| 1925 | 3.2 | 1580 |
| 1926 | 21.4 (Depressionsjahr) | 1551 |
| 1927 | 5.3 | 1903 |
| 1928 | 7.7 | 1987 |
| 1929 | 9.7 | 1915 |

Dauernd ungünstig ist die Marktlage, abgesehen von den Jahren 1924-25, in der Holzindustrie. Die Arbeitslosigkeit liegt über dem Reichsdurchschnitt.

Die Arbeitsmarktlage im Metallgewerbe liegt in den Jahren mit vorwiegend ungünstiger Konjunktur, 1924 und 1926, über dem Gesamtdurchschnitt, in den Jahren 1925, 1927 und 1929 unter dem Gesamtdurchschnitt. Die Rationalisierung erfordert eine starke Beanspruchung der Produktionsgüterindustrien. Die günstige Gestaltung der Ausfuhr von Maschinen und Eisenwaren hat ebenfalls noch zu einer einigermaßen günstigen Beschäftigung in der Metallindustrie in den Jahren 1928/29 beigetragen. Dass aber das Metallgewerbe im grossen und ganzen nicht für den Zudrang neuer Arbeitskräfte aufnahmefähig gewesen ist, geht aus den Zahlen der bei den Berufsgenossenschaften versicherten Personen hervor:

TABELLE III. ENTWICKLUNG DES ARBEITSMARKTS, INSBESONDERE IM METALLGEWERBE.

| Arbeitslosigkeit unter den Gewerkschaftsmitgliedern im Jahresdurchschnitt. | | | | |
|--|-------------------|---------------|-----------------|--|
| | Bei allen Berufen | Holzindustrie | Metallindustrie | Berufsgenossenschaftlich versicherte Personen im Metallgewerbe |
| 1924 | 13.5 % | 11.4 % | 17.4 % | 1595 Tausend |
| 1925 | 6.7 | 6.6 | 6.3 | 1710 |
| 1926 | 18.0 | 27.4 | 19.9 | 1332 |
| 1927 | 8.7 | 12.5 | 8.4 | 1604 |
| 1928 | 8.6 | 11.2 | 5.7 | 1661 |
| 1929 | 13.2 | 18.1 | 9.4 | 1548 |

C. ENTWICKLUNG DES ARBEITNEHMEREINKOMMENS.

Die Löhne und Gehälter der Arbeitnehmer waren am Anfang der Festmarkzeit auf einem ausserordentlichen Tiefstand. Die Stundenlöhne der gelernten Arbeiter betrug etwa 80-90 % von 1913/14, die der ungelerten Arbeiter 105-110 %. Dabei muss man berücksichtigen, dass die Lebenshaltungskosten etwa 120 % von 1930 betragen haben. Das Gesamteinkommen der Arbeitnehmer war dabei noch durch die starke Verbreitung der Arbeitslosigkeit und der Kurzarbeit gemindert.

Mit der Wiederbelebung der wirtschaftlichen Tätigkeit, mit der Erweiterung der Produktion und des Aussenhandels konnten sich auch die Löhne und Gehälter rasch erhöhen. Der tarifmässige Stundenlohn des gelernten Arbeiters betrug Ende Oktober 1925, also am Schluss des Aufschwungs 92 Pfennige gegenüber 59 im Januar 1924, der Stundenlohn des ungelerten betrug 64.4 Pfennige gegenüber 45; die Steigerung machte bei den gelernten Arbeitern 56 %, bei den ungelerten 44 % aus. Damit hatte sich die Spanne zwischen gelernten und ungelerten Arbeitern wieder etwas erweitert, während sie in der Inflationszeit fast ganz verschwunden war.

Im Jahr 1926 stagniert die Aufwärtsbewegung; eine stärkere Lohnsenkung wie sie die Unternehmer unter dem Einfluss der Depression verlangten, wurde im allgemeinen von den Gewerkschaften und den staatlichen Stellen verhindert. Mit der auf-

ARBEITSLOSIGKEIT

steigenden Konjunktur von 1927 machte sich dann wieder eine steigende Tendenz der Löhne geltend, die sich auch über den teilweise eintretenden Konjunkturrückgang um die Jahreswende 1927 auf 1928 fortgesetzt hat, unter dem Einfluss der staatlichen Lohnpolitik. Im ersten Halbjahr 1929 verlangsamt sich die Aufwärtsbewegung und seit Mitte 1929 bleibt die Lohnhöhe im allgemeinen gleich, wenn auch noch einige Berufsgruppen geringe Lohnerhöhungen durchsetzen können. Ende 1929 waren die Löhne der Gelernten etwa 12 %, die der Ungelernten 16 % höher als im Oktober 1927. Aus der Effektivlohnstatistik des Statistischen Reichsamtes geht hervor, dass übertarifliche Zahlungen vielfach verbreitet waren, so dass die Effektivlöhne in den Jahren 1927 und 1928 im Durchschnitt etwa 12-14 % höher lagen als die Tariflöhne. Im Jahre 1929 wurden die übertariflichen Zahlungen in vielen Fällen unter dem Einfluss der rückläufigen Konjunktur reduziert.

Die Reallöhne sind in der Periode von 1924-29 nicht in demselben Masse wie die Nominallöhne gestiegen, da die Lebenshaltungskosten vom Januar 1924 bis Ende 1929 sich von etwa 120 % auf 150 % der Vorkriegszeit (1913/14) erhöht haben. Anfang 1924 lagen die Reallöhne bei den Gelernten auf etwa 70 %, bei den Ungelernten auf etwa 80 % der Vorkriegszeit. Wenn man die übertariflichen Zahlungen einrechnet, so betragen sie Ende 1929 bei den Gelernten ungefähr 110 %, bei den Ungelernten 120 % der Vorkriegszeit; unter Zugrundelegung der tariflichen Wochenlöhne haben die Reallöhne bei den Gelernten seit Ende 1928 etwa gerade das Vorkriegsniveau erreicht, bei den Ungelernten um etwa 10 % überschritten.

Die Bewegung der Gehälter der Angestellten in der Zeit von 1924-29 war derjenigen der Löhne der Arbeiter ähnlich; im allgemeinen wird sich aber vermutlich die Gehaltsanlage der Angestellten gegenüber der Vorkriegszeit etwas verschlechtert haben.

ZWEITER TEIL : VERSUCH EINER REKONSTRUKTION DER KAUSALKETTE BIS ZUM ZUSAMMENBRUCH 1930-1931.

I. DIE ERSTE NACHKRIEGSZEIT.

In den Jahren nach dem Ausgang des Kriegs war die mengenmässige Produktion gegenüber der Vorkriegszeit sehr gering, sowohl in der Landwirtschaft wie in der Industrie. Die Produktion fand unter ungünstigen Bedingungen statt. Daher war auch die Arbeitsleistung und die Ergiebigkeit der andern Produktionsfaktoren gering. Das lag an der starken Abgenutztheit des Produktionsapparats, vielfach auch an technischer Rückständigkeit, an Kohlen- und Rohstoffmangel, an der schlechten Qualität der Rohstoffe und der Produktionsmittel, an aussen- und innenpolitischen Beunruhigungen, an Verkehrsstörungen an Streiks, an der geringen Leistungsfähigkeit mancher Arbeiter infolge schlechter Ernährung, an der durch die Verkürzung der Arbeitszeit notwendigen Umstellung u.s.w. Die Möglichkeit, sich aus dem Ausland Rohstoffe und Nahrungsmittel zu beschaffen, war nur beschränkt gegeben; das zwang zur Ausnutzung auch der ungünstigsten Produktionsmöglichkeiten im Inland. Die starke Abnutzung der Produktionsmittel machte wegen der mannigfachen Reparaturen, die schlechte Qualität der Werkstücke wegen der mühevollen Verarbeitung die Mehreinstellung von Arbeitskräften notwendig.

Der Export war zwar im Verhältnis zu dem niederen Sozialprodukt gross, aber im Vergleich zur Jetztzeit und zur Vorkriegszeit wert- und mengenmässig gering. Dementsprechend musste bei dem Fehlen von sonstigen Einnahmen aus dem Ausland und den Abgaben auf Grund des Friedensvertrags der Import wert- und mengenmässig klein sein, trotz des allerdringlichsten Bedarfs an ausländischen Rohstoffen und Nahrungsmitteln. Schon aus diesem Grunde bestand ein ausgesprochener Rohstoffmangel in einem hauptsächlich auf Verarbeitung und Veredlung eingestellten Lande wie Deutschland.

Aus alledem geht hervor, dass die Lebenshaltung ausserordentlich nieder sein musste und erst recht die in Goldmark gerech-

ARBEITSLOSIGKEIT

neten Einkommen. Die Zeit war gekennzeichnet durch eine fast an Hunger grenzende schlechte Versorgung mit Nahrungsmitteln, durch den Mangel an Kleidungsstücken, durch Ueberfüllung der Wohnungen. Die Löhne und Gehälter nivellierten sich auf einem sehr niedrigen Existenzminimum; so kam es, dass die ungelernten Arbeiter noch relativ am besten bezahlt waren, gegenüber der Vorkriegszeit.

Durch die Geldentwertung und die Wohnungszwangswirtschaft verschwinden die Einkommen aus Geldkapitalanlagen, die Renten, Mieten, privaten Pensionsansprüche, so dass die Träger dieser Einkommen soweit noch arbeitsfähig, zur Aufnahme einer Beschäftigung gezwungen sind. Auf der andern Seite absorbieren die Zuwendungen an die durch den Krieg und die Besetzung geschädigten Personen (insbesondere 1923) einen relativ grossen Anteil des geringen Volkseinkommens.

Trotz des oder besser gesagt - aus dem vorigen erklärlich - wegen des geringen Produktionsvolumens ist die Beschäftigtenzahl hoch und die Arbeitslosigkeit im allgemeinen gering. Dem grossen Angebot von Arbeitskräften, erweitert durch Zustrom von Deutschen aus den besetzten und den abgetretenen Gebieten und aus dem sonstigen Ausland aus den Kreisen des Selbständigen, der Rentner, des ehemaligen Heeres und der Frauen stand eine starke Nachfrage nach Arbeitskräften gegenüber.

Diese Nachfrage war durch die dauernde Vermehrung des Zahlungsmittelumlaufs und die Beschleunigung der Umlaufgeschwindigkeit - kurz durch die Inflation - ermöglicht; die rasche Geldentwertung machte die Geschäfte fast risikolos, soweit sie sich im Inland abspielten. Da die Steuern, Frachten, Porti, Mieten, Zinsen und Kreditrückzahlungen infolge der raschen Geldentwertung auf ein ausserordentlich niedriges Niveau gesunken waren, so konnte die Produktion vielfach auch unter technischen, natürlichen und standortlichen Bedingungen aufgenommen werden, unter denen sie bei normaler Preisgestaltung der Kostenfaktoren im Hinblick auf den Wettbewerb mit im Inland und Ausland günstiger ausgestatteten Betrieben unmöglich gewesen wäre.

Mit der Einführung der Rentenmark tritt eine allgemeine Stok-

DEUTSCHLAND

kung des Wirtschaftslebens ein, die sich im übrigen schon gegen das Ende der Inflation, wo die deutsche Mark immer mehr als Zahlungsmittel und Recheneinheit ausschied, vorbereitet hatte. Die Beschäftigtenzahl ging stark zurück. Die risikolose Produktion fiel weg; eine geordnete Kalkulation, bei der wieder Frachten, Steuern, Zinsen, Kreditrückzahlungen, Mieten u.s.w. berücksichtigt werden mussten, ist an ihre Stelle getreten. Die Umstellung auf eine stärkere Eingliederung in die Weltwirtschaft wurde notwendig.

Bei der geringen Produktionskapazität und dem starken, aber mangels genügender Exportfähigkeit nicht zu befriedigenden Bedarf an ausländischen Rohstoffen musste das geldliche Niveau der Einkommen und Löhne sehr tief sein, schon im Interesse der Aufrechterhaltung der Devisenkurse, die durch eine bei höheren Geldeinkommen eingetretene Steigerung der Nachfrage nach den zum Import notwendigen Devisen alsbald mangels eines genügenden aus Export stammenden Angebots, erschüttert worden wäre.

Eine günstige Voraussetzung für die Stabilisierung und die Aufrechterhaltung der Devisenkurse ergab sich aus folgenden Umständen: Abgesehen von einigen Sachlieferungen und Ausfuhrabgaben waren die Reparationen suspendiert; die Zahlungen an die Bevölkerung des Ruhrgebiets waren nach Aufgabe des passiven Widerstands zum grossen Teil eingestellt; die sonstigen Ausgaben der öffentlichen Körperschaften konnten durch rigorose Sparmassnahmen gedrosselt werden.

II. DER AUFSTIEG.

Die deutsche Wirtschaft scheint sich nach einem vorübergehenden Rückschlag im Winter 1925/26 erstaunlich rasch von den Schäden der Kriegs- und Inflationszeit zu erholen. Das Produktionsvolumen erweitert sich stark und erreicht im allgemeinen wohl die Höhe der Vorkriegszeit (der Produktionsindex steigt von 52 im Januar 1924 auf 100 im Monatsdurchschnitt des Jahres 1928).

Eine günstige Voraussetzung für die Steigerung der Produktion war die Ausdehnung des Geldumlaufs und des Kreditvolumens. Die Schaffung geordneter Kreditbeziehungen ermöglichte es den

ARBEITSLOSIGKEIT

Unternehmungen, die für eine erweiterte Produktion notwendigen Waren- und Geldübertragungen vorzunehmen. Der Rückfluss von im Ausland angelegten deutschen Geldern und die Gewährung von Auslandsanleihen an Deutschland gestatten wiederum eine stärkere Einfuhr von Rohstoffen, die die Grundlage für eine erweiterte Produktion im Inland bildeten.

Technisch war die Steigerung der Produktion ermöglicht durch eine bessere Organisation der Betriebe, durch rationellere Methoden, durch eine starke Mechanisierung und in der Landwirtschaft vornehmlich durch einen gesteigerten Verbrauch von chemischen Düngemitteln. Durch grosse Investitionen wurde die Kapazität des industriellen Produktionsapparats noch wesentlich über die durch die Absatzverhältnisse gegebenen Möglichkeiten hinaus gesteigert.

Die mengenmässige Steigerung und die qualitative Verbesserung der Produktion ermöglichen wiederum eine Steigerung des Exports von Fertigwaren, hauptsächlich in die europäischen Nachbarländer. Damit wird auch eine bessere Voraussetzung für den Import ausländischer Waren gegeben.

Im Zusammenhang mit der mengenmässigen Steigerung der Produktion und des Aussenhandels tritt auch eine Erhöhung der geldmässigen Umsätze und der Geldeinkommen ein. Daran nehmen auch die Arbeitnehmer teil; die Jahresverdienste der berufsgenossenschaftlich versicherten Personen (das sind in der Hauptsache die gewerblichen Arbeiter) steigen im ganzen von 11.9 Milliarden Mark im Jahr 1924 auf 21.5 Milliarden Mark im Jahre 1929, ohne dass sich die Gesamtzahl der Arbeiter erheblich verändert hätte. Mit der Steigerung der Nominallöhne steigen auch die Lebenshaltungskosten, aber bei weitem nicht in demselben Masse, so dass sich die Reallöhne erheblich über den ausserordentlich tiefen Stand nach dem Ende der Inflation gehoben haben. Auch die Einkommen anderer Gruppen, wie die der Beamten in der öffentlichen Verwaltung und den öffentlichen Betrieben, steigen etwa entsprechend der Erhöhung des Volkseinkommens. Das Einkommen aus Kapital, aus Vermietung und Verpachtung, das in der Inflation verschwunden war, tritt wieder in wachsendem Masse in Erscheinung.

Die steigenden Einkommen wirken sich in einer Hebung des

DEUTSCHLAND

Lebensstandards aus. Der Verbrauch steigt mengenmässig und qualitativ. Das zeigt sich besonders in einer Steigerung der Einfuhr von hochwertigen Textilrohstoffen und Halbwaren, von veredelten landwirtschaftlichen Produkten, von Südfrüchten, Genussmitteln und in einem erhöhten Verbrauch von Bier, Schokolade, kosmetischen Artikeln, Kraftfahrzeugen u.s.w.

Man darf aber nicht vergessen, dass die Lebenshaltung eines grossen Teils der Schicht, die man als „Mittelstand“ bezeichnet, als eine dauernde Folge des Kriegs, des Friedensvertrags und der Inflation, gegenüber der Vorkriegszeit stark gesenkt worden ist. So haben die Besitzer von Sparguthaben und festverzinslichen Wertpapieren in der Inflation ihre Einkommensquelle verloren. Die Aufwertung gibt ihnen nur einen kleinen Teil ihres früheren Vermögens wieder. So sind jetzt viele Hunderttausende ehemalige Kapitalbesitzer auf Fürsorgeunterstützung angewiesen. Die Hausbesitzer erhalten, nach Abzug der Mietzinssteuer, etwa nur die Hälfte ihrer früheren Realmeteinnahmen. Personen, die in der Vorkriegszeit Unternehmungen und Kapitalanlagen im während des Kriegs feindlichen Ausland gehabt haben, sind zum grossen Teil auf die zur Deckung der durch die Liquidation entstandenen Verluste bei weitem nicht ausreichenden Entschädigungen des Reichs angewiesen.

III. DIE UMSCHICHTUNG DER ERWERBSTÄTIGEN.

In der Inflationsperiode ist der Beschäftigungsstand bei geringem Produktionsvolumen verhältnismässig sehr hoch gewesen. Die Steigerung der Produktion in dem Zeitraum von 1924-29 ist ohne Steigerung der Beschäftigtenzahl in Landwirtschaft und Industrie erfolgt; im Gegenteil, die Zahl der Beschäftigten in der Industrie im engeren Sinn (mit Bergbau ohne Baugewerbe) ist - trotz der inzwischen eingetretenen Vermehrung der Erwerbstätigen - im Jahre 1928, das seit 1923 mit 8.35 Millionen berufsgenossenschaftlich versicherter Personen ein Maximum in der Beschäftigtenzahl aufweist, kleiner, als im Jahre 1922, das mit 8.5 Millionen einen Rekord verzeichnet - ein Erfolg der Mechanisierung, der Einführung rationeller Methoden, der durch die internationale Verflechtung ermöglichten Beschränkung auf die Ausnützung günstiger Produktionsmöglichkeiten und, was

ARBEITSLOSIGKEIT

damit im Zusammenhang steht, eine Folge der Steigerung des Exports, da er die Einfuhr von qualitativ hochstehenden Rohstoffen ermöglicht, zu deren Verarbeitung weniger menschliche Arbeitskräfte notwendig sind.

Die Verlängerung der Arbeitszeit und die Einführung rationeller Arbeitsmethoden bringen im Bergbau und Hüttenwesen, im Metallgewerbe, in der öffentlichen Verwaltung und den öffentlichen Betrieben (insbesondere bei der Reichsbahn und der Reichspost) ferner im Bankgewerbe einen starken Abbau von Arbeitnehmern mit sich. Dieser Rückgang in den erwähnten Gruppen beläuft sich auf etwa 1.5 Millionen.

Andererseits erfordert die Umstellung auf eine Erweiterung der Produktion und auf eine intensive Inangriffnahme des seit 10 Jahren versäumten Wohnungsbaues eine stärkere Inanspruchnahme der Produktionsgüter produzierenden Gewerbezweige - der Schwerindustrie, des Metallgewerbes, der Elektroindustrie, der Baustoffindustrie und des B a u g e w e r b e s. Die Metall-, Schwer- und Baustoffindustrie kommen dabei trotzdem mit einer reduzierten Zahl von Arbeitskräften aus, wogegen das Baugewerbe, das erst in den letzten 2 Jahren rationellere Methoden eingeführt hat, eine ausserordentliche Aufnahmefähigkeit zeigt; im Jahre 1928 sind in der Hauptsaison darin 700,000 Menschen mehr beschäftigt als 1924; auch das Holzgewerbe ist im Zusammenhang mit der Erweiterung der Bautätigkeit, wenn auch in geringem Masse, für Arbeitskräfte aufnahmefähig.

Die starke Steigerung des Exports wird dazu beigetragen haben, dass sich die Zahl der Beschäftigten in der Feinmechanik, in der elektrotechnischen, chemischen und keramischen Industrie von 1924-28 noch etwas gehoben hat und in der Metallindustrie nicht in dem Masse zurückgegangen ist, wie sie ohne Steigerung der Exports. allein unter dem Einfluss der Rationalisierung zurückgegangen sein würde.

Die mit der Steigerung der Einkommen verbundene qualitative Hebung des Verbrauchs ermöglicht eine gewisse Ausdehnung der Verbrauchsgütergewerbe. So kann die Textil- und Bekleidungsindustrie die Zahl ihrer Beschäftigten noch steigern, in weit höherem Masse sind die dem Verbräuche am nächsten stehenden Gewerbe aufnahmefähig für neue Arbeitskräfte: der Einzelhandel,

DEUTSCHLAND

das Nahrungsmittelgewerbe, das Gastwirtsgewerbe und die Personenbeförderung.

Weiterhin führt die zunehmende Notwendigkeit, um den Absatz der steigenden Produktion zu kämpfen, zu einer Vergrößerung der Zahl der im Vertrieb Beschäftigten und derjenigen Personen, die in mittelbar für den Vertrieb arbeitenden Gewerbebezweigen beschäftigt sind (Buchdruck, Reklametätigkeit). Zweifellos wird die Vertriebstätigkeit (unlohnende Vertretungen gegen Provision, Strassen- und Hausierhandel) dabei von vielen mangels einer besseren Beschäftigung ausgeübt.

Die Zahl der Privatangestellten nimmt noch zu, schon weil die Produktionstätigkeit, eine Folge der Rationalisierung, mehr von der Werkstatt in das Büro verlegt wird. Der Wandel in der Betriebsgestaltung - jetzt mehr rational, früher mehr traditionell - machte aber dabei gerade diejenigen Angestellten, auf deren Erfahrung früher so grosser Wert gelegt worden ist, das sind die älteren, langjährig im Dienst einer Unternehmung beschäftigten Angestellten, in steigendem Masse überflüssig. Zweifellos spielt dabei auch noch die höhere tarifliche Bezahlung gegenüber den jüngeren Angestellten eine für die Beschäftigung der älteren Angestellten ungünstige Rolle.

Der - durch das Einrücken der noch stark besetzten Vorkriegsjahrgänge in das erwerbsfähige Alter bedingte - Zuwachs an Arbeitnehmern ist seit 1925 nicht von der Landwirtschaft und der Industrie im engeren Sinne aufgenommen worden, sondern von den im Vorhergehenden geschilderten Berufsgruppen, allerdings seit 1927 in immer weniger befriedigendem Masse, was aus den steigenden Ziffern der Arbeitslosen ersichtlich ist.

Wie es überhaupt bei einer Steigerung der Ergiebigkeit der Produktionsfaktoren die Regel ist, stellen wir auch in Deutschland im Laufe der Jahre von 1922 bis 1928, bzw. 29 eine Umschichtung fest: Abwanderung der Beschäftigten von den für dringlichen Bedarf arbeitenden Wirtschaftszweigen zu den für weniger dringlichen Bedarf arbeitenden Beschäftigungen (verfeinerter Bedarf, Dienstleitungen aller Art), weiter zu den für dauernden Bedarf (Realkapitalbildung, Wohnungsbautätigkeit) arbeitenden Wirtschaftszweigen und zu der mit der Ausdehnung der Produktion wegen der wachsenden Kompliziertheit des Absatzes zunehmenden Vertriebstätigkeit.

ARBEITSLOSIGKEIT

IV. DIE STUETZEN FUER DIE AUFRECHTERHALTUNG DES BESCHAEFTIGUNGSGRADES 1928 UND 1929.

Seit Ende 1927, in welchem Jahre ein äusserst krasser, fast als überhitzt zu bezeichnender Aufschwung stattgefunden hatte, machte sich ein Rückgang des inländischen Auftragseingangs bei den Produktionsgüterindustrien und der Erlaubnisse für gewerbliche Bauten bemerkbar. Der Ausbau des industriellen Produktionsapparats hat im letzten Vierteljahr 1927 seinen Höhepunkt erreicht, was sich seitdem auswirkt in einer verringerten Rentabilität, zunehmenden Zahlungseinstellungen und in einem Rückgang der Beschäftigten bei den für den Ausbau des industriellen Produktionsapparates arbeitenden Wirtschaftszweigen, aber auch bei den meisten Wirtschaftszweigen, die ihre Produktion rationalisiert haben, ihren Absatz aber nicht entsprechend ausdehnen können und sich so infolge ihrer Ueberkapazität verschärfte Konkurrenz machen.

Der Absatz des gesteigerten Produktionsvolumens und der Beschäftigungsgrad der Arbeitnehmer fand vorläufig noch eine Stütze in der erhöhten Konsumtionsfähigkeit eines grossen Teiles der Bevölkerung, insbesondere der Beamten und Arbeitnehmer, bei denen eine erhebliche Steigerung des Nominal Einkommens eingetreten ist, aber auch der Selbständigen, die noch von den Gewinnen des Jahres 1927 zehren können. Der Einzelhandel und das Gastwirtsgewerbe erfreuen sich wachsender Umsätze bei steigenden Einzelhandelspreisen.

Das Baugewerbe bekommt von der öffentlichen Hand noch grosse Aufträge, z.B. im Strassenbau, der sich dem gesteigerten Automobilverkehr anpassen muss, und im Wohnungsbau. Das Jahr 1929 war ein Rekordjahr für den Wohnungsbau, wie für die gesamte Bautätigkeit, die eine Wertschöpfung von annähernd 9 Milliarden Reichsmark zu verzeichnen hatte. Die Aufträge des Baugewerbes geben der Eisen- und Stahlindustrie, der grobkeramischen Industrie, dem Holzgewerbe und dem Handwerk noch einen guten Ersatz für den Rückgang an Aufträgen aus der sonstigen Industrie.

Die günstige Konjunktur in den Nachbarländern Deutschlands ermöglicht noch eine wesentliche Steigerung des Exportes, insbesondere bei der Maschinen-, Eisen- und Metallwaren-

DEUTSCHLAND

industrie. Damit wird dem Metallgewerbe noch ein einigermaßen günstiger Beschäftigungsstand erhalten. Während der Produktionsmittelexport stark ansteigt, in den Jahren 1927-1929, geht der Export von einigen Konsumgütern (z.B. Porzellan, Musikinstrumenten, Wirkwaren u.s.w.) zum Teil unter dem Einfluss von Zollerhöhungen des Auslands schon stark zurück. Der gesamte Export hat im Jahre 1929 seinen Höhepunkt mit 13.5 Milliarden Mark erreicht.

V. HEMMUNGEN.

Die Voraussetzungen für die Aufrechterhaltung der Stützen des Geschäftsganges und des Beschäftigungsgrades sind in Deutschland nicht günstig, insbesondere nicht für die Bautätigkeit und für eine erhöhte Konsumfähigkeit.

Eine ausgedehnte Bautätigkeit kann auf die Dauer nur bei einem einigermaßen erträglichen Zinssatz für langfristiges Kapital bestehen. Trotz der rückläufigen Konjunktur in den Produktionsgüterindustrien ist nun seit 1927 keine Senkung des Zinsfußes, was sonst als Folge der verringerten Kapitalnachfrage aus der Industrie zu erwarten gewesen wäre, sondern eine Erhöhung eingetreten. Diese Steigerung, zum Teil eine Folge der starken Investitionstätigkeit der öffentlichen Hand, war ein deutliches Zeichen einer unzureichenden Versorgung mit langfristigem Kapital.

Der Kapitalmangel, ein dauerndes Kennzeichen der wirtschaftlichen Lage Deutschlands in der Nachkriegszeit, ist eine Hemmung für die Entfaltung einer dauernden Prosperität in Deutschland.

Der Kapitalmangel liegt einmal begründet in einer starken - wegen der Höhe des Zinsfußes in vielen Fällen nur latenten - Nachfrage nach Kapital. Unmittelbar nach der Inflation ging die Nachfrage besonders stark von der Industrie aus, die ihren durch den Krieg und die Kriegsfolgen herabgewirtschafteten Produktionsapparat wieder ausbauen musste. Seit Ende 1927 ist diese Nachfrage mit der rückläufigen Konjunktur etwas zurückgegangen. Die Landwirtschaft hat einen starken latenten Kapitalbedarf zur Verbesserung ihrer Produktionsgrundlagen, zur Umgestaltung der Betriebsgrößen, etwa im Wege der

ARBEITSLOSIGKEIT

Siedlung. Von der öffentlichen Hand geht eine starke Nachfrage aus für den Ausbau ihrer Betriebe, für die Ausgestaltung ihrer sozialen und kulturellen Einrichtungen und vor allem für die Förderung des Wohnungsbaues. Durch das Ausbleiben einer nennenswerten Neubautätigkeit von 1914-1924 und durch das Unterlassen notwendiger Reparaturen ist ein Fehlbedarf von 600,000—1 Million Wohnungen entstanden, dessen erst allmählich mögliche Beseitigung ein Grund für einen starken latenten Kapitalbedarf ist. Hinzu kommt noch der sich aus dem Zuwachs der Bevölkerung ergebende laufende, jährliche Neubedarf von 200,000-250,000 Wohnungen. Zeitweise bestand auch ein starker Bedarf an Kapital zur Auffüllung der geleerten Warenlager und zur Gewährung von Abnehmerkrediten.

Dem ausserordentlich starken Bedarf steht nun ein gegen die Vorkriegszeit vermindertes Angebot an Kapital gegenüber. Das erklärt sich aus dem starken Zurücktreten der für die Kapitalbildung besonders in Betracht kommenden hohen Einkommen und zudem noch aus der hohen Besteuerung dieser hohen Einkommen; weiterhin aber überhaupt aus dem gegenüber der Vorkriegszeit verringerten Sozialprodukt und aus dessen Belastung durch die Reparationen und die sonstigen Kriegsschäden. Auch der Sparwille ist nach Erfahrungen der Inflation gemindert. Ein gewisses Misstrauen in die durch aussen- und innenpolitische Beunruhigungen gefährdeten Wirtschaftsverhältnisse lähmt die Festlegung von Kapital in Deutschland (Kapitalflucht, siehe auch unter Zusammenfassender Rückblick und Ausblick). Eine in manchen Bevölkerungskreisen vorhandene nach den Entbehrungen der Inflationszeit verständliche Tendenz der Verfeinerung und Ausweitung des Verbrauchs führt zu einer Verringerung der Rücklagen, die als Angebot auf dem Kapitalmarkt erscheinen. Zwar hat sich die Spartätigkeit bei den mittleren und kleineren Einkommen erfreulich entwickelt, was sich an der Zunahme der Spareinlagen bei den Sparkassen und Genossenschaften und an dem Zuwachs der Prämieinnahmen bei den Lebensversicherungen zeigt; aber dies reicht nicht aus, um den aus den vorigen Gründen erklärlichen Ausfall wettzumachen.

Einige Fehlleitungen von Kapital, wie sie bei der Industrie durch

DEUTSCHLAND

Selbstfinanzierung, oder bei der Landwirtschaft durch allzu entgegenkommende Kreditgewährung in den ersten Jahren nach der Inflation vorgekommen sind, haben nicht zu einer Verbesserung der Lage am Kapitalmarkt beigetragen.

Auslandskredite mussten die unzureichende innere Kapitalbildung ergänzen, um die starke Nachfrage einigermassen zu befriedigen. Zweifellos haben die Auslandsanleihen und ausländischen Beteiligungen in den Jahren 1925 bis 1927 stark zu einer Entfaltung der deutschen Produktion beigetragen und eine Steigerung der Produktionskapazität in einem Tempo ermöglicht, die aus eigener Kraft nicht geschaffen werden konnte. Deutschland hat sich jedoch auch nach dem Ausbau seines Produktionsapparates in starkem Masse auf Auslandskredite für Zwecke eingestellt, die wie der Wohnungsbau auf die Dauer aus der inneren Kapitalbildung befriedigt werden müssen.

Die Rückzahlung und die hohe Verzinsung der von 1925 bis 1929 in ausserordentlich starkem Masse aufgenommenen Auslandskredite, ebenso wie die Reparationszahlungen bilden wegen des notwendigen Ausgleichs der Zahlungsbilanz ein schwerwiegendes Hemmnis für die weitere Entfaltung, ja für die Aufrechterhaltung des inländischen Verbrauchs und der Höhe der Geldeinkommen auf dem Niveau von 1927/29. Die erhöhte Konsumfähigkeit, bis 1929 eine Stütze der sonst rückgängigen Konjunktur, hatte eine Grenze in dem Zwang zum Ausgleich der durch einseitige Zahlungen stark belasteten Zahlungsbilanz. Bis zum Jahr 1929 konnte der aus den Reparationen entstehende Devisenbedarf nur aus dem zusätzlichen Angebot an Devisen, das mit dem Hereinströmen von Auslandskrediten zusammenhing, befriedigt werden. Die Zahlungen auf Grund der Verpflichtungen aus Auslandskrediten und Reparationen können auf die Dauer bei dem Fehlen von nennenswerten Einnahmen aus deutschen Kapitalanlagen im Ausland nur aus Ueberschüssen der Leistungsbilanz (Handels- und Dienstleistungsbilanz) bewirkt werden. Deutschland ist zu einer rücksichtslosen Steigerung des Exports gezwungen, die zu einer Gefährdung des Lebensstandards nicht nur der deutschen Arbeiter, sondern auch der Industriearbeiter der mit Deutschland konkurrierenden Länder führt und so wiederum Gegenmassnahmen, die den deutschen Export hemmen, hervorruft. Bei der

ARBEITSLOSIGKEIT

beschränkten Möglichkeit einer Exportsteigerung oder vermehrten Dienstleistungen zum Ausgleich der Zahlungsbilanz muss aber eine starke Minderung des Importes von für den inländischen Verbrauch bestimmten Waren eintreten. Angesichts der Abhängigkeit der deutschen Wirtschaft von ausländischen, zumeist nicht durch eigene Erzeugung ersetzbaren Rohstoffen und von Nahrungsmitteln, deren Import nur durch eine erst im Laufe von vielen Jahren zu erreichende quantitative und qualitative Steigerung der landwirtschaftlichen Erzeugung eingeschränkt werden könnte, muss das bei den gegebenen Umständen zu einer allgemeinen Senkung des inländischen Verbrauchs und der Geldeinkommen führen.

Die Verwendung der Auslandskredite hat vielfach nicht zu einer Ertragssteigerung geführt, aus welcher nun die Verzinsung ohne Schädigung anderer Gruppen bestritten werden könnte. Die Steigerung der Leistungsfähigkeit konnte zu einer Verdrängung weniger leistungsfähiger Betriebe und zu einem Einkommensausfall der freigesetzten Unternehmer und Arbeitnehmer führen. Die Verzinsung und Tilgung der von der öffentlichen Hand aufgenommenen Auslandskredite muss vielfach aus Steuermitteln erfolgen, das heisst im Endeffekt: Zu Lasten des sonst für den Verbrauch und die Kapitalbildung verfügbaren Einkommens.

Die Möglichkeit einer plötzlichen Abziehung der in Deutschland angelegten kurzfristigen Gelder birgt immer eine gewisse Gefahr, zwar nicht für die durch mannigfache Vorsichtsmassnahmen geschützte Währung, aber für die Stabilität des Kreditwesens. Die kurzfristigen Kredite bilden daher keine Grundlage für eine dauernde Belebung des Geschäftsganges und für eine Verringerung des Kapitalmangels.

VI DIE WELTWIRTSCHAFTSKRISE.

Der Zusammenbruch der Konjunktur auf dem Weltmarkte, insbesondere in den Vereinigten Staaten, musste in mehrfacher Hinsicht ungünstig auf die weitere Entwicklung der deutschen Wirtschaften wirken. Er hat auch 1930 in Deutschland zum Ausbruch einer sich schon seit 2 Jahren vorbereiteten Krise geführt.

Die Anspannung auf den internationalen Geldmärkten, namentlich in den Vereinigten Staaten, führte zu einer Abziehung von

DEUTSCHLAND

kurzfristig angelegten Geldern. Die wachsende Kapitalverknappung machte schon im Jahre 1929 die Aufnahme von langfristigen Auslandskrediten sehr schwierig. Diese starke Beschränkung der Kapitalzufuhr musste in Deutschland zu einer Verminderung der Aufträge an die Kapitalgütergewerbe und damit zu einer Verschlechterung des Beschäftigungsgrades führen. Die Wohnungs- und öffentliche Bautätigkeit konnte sich zwar noch im Jahre 1929 durch eine Vorwegnahme der für das Jahr 1930 zu erwartenden Zuflüsse von Kapital und Hauszinssteuermitteln auf einem hohen Stand erhalten. Dies musste sich aber umso schlimmer im Jahre 1930 auswirken.

Der Rückgang der Auslandskredite musste auch zu einer Einschränkung der Importmöglichkeiten führen. Diese Wirkung wurde 1929 noch durch die Zuflüsse der aus der Freigabe des deutschen Eigentums in U. S. A. stammenden Beträge aufgehalten. Im Jahre 1930 musste mittelbar im Zusammenhang mit den verringerten Importmöglichkeiten der Rückgang des Verbrauchs zu einem starken Beschäftigungsrückgang in den für den Verbrauch arbeitenden Gewerbebezügen und so zu einer weiteren Erschütterung der Stützen der deutschen Konjunktur führen.

Die Steigerung des deutschen Exports findet mit dem Aufhören der internationalen Produktionsausweitung ein Ende. Der Export geht 1930 wertmässig um 11 %, mengenmässig wegen der gesunkenen Preise um etwa 5-6 % zurück. Dieser Rückgang erscheint gegenüber anderen Ländern nicht stark. Immerhin musste er gerade eine auf rücksichtslose Exporttätigkeit eingestellte Volkswirtschaft belasten. Der Rückgang des deutschen Exports wird noch schärfer werden, wenn die Weltwirtschaftskrise auch in den hauptsächlich für den deutschen Export in Betracht kommenden Nachbarländern voll zur Auswirkung gekommen sein wird.

Die rückläufigen Rohstoffpreise der Welthandelsgüter, einerseits für ein rohstoffimportierendes Land vom Standpunkt der Zahlungsbilanz und der Selbstkosten günstig, bringen namentlich in der Textilindustrie einige Unsicherheiten in die Dispositionen der Unternehmer und führen zu einer Zurückhaltung in der Auftragserteilung und Produktion.

ARBEITSLOSIGKEIT

VII. DIE FINANZKRISE.

Bei der starken Ausdehnung, welche die öffentliche Wirtschaft in der Nachkriegszeit gehabt hat, stehen die öffentlichen Finanzen in doppelt engem Zusammenhang mit dem allgemeinen Wirtschaftsverlauf. Nun kann die ungünstige Entwicklung der Finanzen seit 1927 einerseits zum Teil als eine Folge der rückläufigen Konjunktur betrachtet werden, andererseits muss die Gestaltung der Finanzen als eine stark verschlimmernde Ursache für den ungünstigen Verlauf der Konjunktur angesehen werden.

Nach der Ordnung der deutschen Finanzen im Winter 1923/24, die unter scharfen Sparmassnahmen auf der Ausgabenseite (niedere Beamtengehälter, geringe Sozial- und Sachausgaben) und unter der Auferlegung einer drückenden Steuerlast auf der Einnahmenseite durchgeführt worden ist, konnten infolge der verhältnismässig raschen Ausdehnung der wirtschaftlichen Tätigkeit in den Jahren 1924/25 erhebliche Ueberschüsse erzielt werden. Dies machte eine Senkung gewisser Steuern möglich, führte aber auch zu einer Liberalität auf der Ausgabenseite. Vorteilhaft wirkten sich die aus 1924/25 angesammelten Reserven im Jahre 1926 aus, wo Notstandsarbeiten und ein grosses Bauprogramm zu einer Milderung der Arbeitslosigkeit beigetragen haben. Von 1927 an konnten die Einnahmen nicht mehr mit der steigenden Tendenz der Ausgaben Schritt halten. Im Rechnungsjahr 1927/28 sind die Ausgaben um 30 % höher als 1924/26.

Eine starke Erhöhung der gegenüber der Lohnentwicklung zurückgebliebenen Beamtengehälter und noch mehr der Pensionen, die Erhöhung der Löhne der Arbeiter der Verwaltung und der öffentlichen Betriebe und endlich die Einführung der Arbeitslosenversicherung im Herbst 1927, die ihre Beitragssätze und Unterstützungen auf viel zu günstig angenommenen Voraussetzungen aufgebaut hatte und daher schon im Jahre 1928 mit einem Defizit abschloss - trotz des noch günstigen Beschäftigungsstandes - waren besonders verhängnisvoll für die weitere Entwicklung der Finanzen. Im weiteren stiegen auch die Ausgaben der Sozialversicherungskörper an - zum Teil eine Folge der zunehmenden Ueberalterung der Bevölkerung, der aber nicht durch entsprechende Rückstellungen Rechnung getragen worden ist und auch in der kurzen Zeit von 1924-1929 nicht Rechnung ge-

DEUTSCHLAND

tragen werden konnte, da die Anlagen zum allergrössten Teil durch die Geldentwertung aufgezehrt worden sind - und ferner nahmen ja auch die Reparationslasten bis zu Erreichung der Normalzahlungen des Dawesplanes zu. Sie haben 1930 ein Reduktion erfahren, die aber schon zum guten Teil durch die Erhöhung des Geldwertes kompensiert worden ist.

Als Folge der starken Ausgabesteigerungen zeigte sich schon im Rechnungsjahre 1928/29, das doch noch eine verhältnismässig günstige Wirtschaftslage hatte, ein starkes Defizit. Zum Ausgleich wurden Auslandsanleihen, auch inländische Kredite aufgenommen und einige Steuern erhöht. Die öffentlichen Betriebe mussten ihre Tarife steigern. Dies musste sich sehr ungünstig auswirken auf die Selbstkosten der Privatwirtschaft, die bei der stockenden Konjunktur nicht mehr ihren Absatz und nur in wenigen Fällen ihre Preise steigern konnte. Im Jahre 1930 steigen die Ausgaben unter dem Druck der wachsenden Arbeitslosigkeit, deren Kosten sich auf etwa 2.5 bis 2.8 Milliarden belaufen, trotz mancherlei Sparmassnahmen an. Zum Ausgleich müssen weitere Steuererhöhungen vorgenommen werden. Die Einnahmen gehen aber trotz der erhöhten Steuersätze infolge der schlechten Konjunktur zurück. Dies zwingt zu einer weiteren scharfen Reduktion der Ausgaben.

Da nun aber die Ausgaben für Schuldentilgung und Verzinsung, sowie für die Reparationszahlungen infolge vertraglicher Bindungen absolut starr sind, die Ausgaben für Besoldungen, Kriegsbeschädigtenversorgung, Pensionen und soziale Leistungen wegen gesetzlicher Bindungen annähernd starr sind bzw. sehr unelastisch, so mussten sich die Sparmassnahmen in ihrem vollen Gewicht auf die elastischen Ausgaben verlegen, also auf die Beschäftigung der kündbar angestellten Personen, deren Entlassung meist zu einer Steigerung der Arbeitslosigkeit führt, und auf die Reduktion der Sachausgaben unmittelbarer und mittelbarer Art (wie z.B. der Darlehensgewährung für den Wohnungbau). Da diese Sachausgaben nichts anderes als Aufträge für die Wirtschaft - namentlich für die Produktionsgüterindustrie, vor allem das Baugewerbe - bedeuten, so mussten die einschneidenden Abstriche der öffentlichen Hand bei deren ausserordentlicher Bedeutung für das Wirtschaftsleben zu einem katastrophalen Rückgang der

ARBEITSLOSIGKEIT

Beschäftigung in den Produktionsgütergewerben führen. Die Sparmassnahmen, deren wohltuende Wirkungen erst im Verlauf einiger Jahre zu spüren sind, haben so die Krise in ausserordentlichem Masse verschärft.

Trotzdem kann der Haushalt der öffentlichen Verwaltung und der öffentlichen Betriebe nicht bilanziert werden. Zur Deckung der Defizite muss der inländische und soweit möglich auch der ausländische Kapitalmarkt herangezogen werden, z.B. müssen die Einlagen der kommunalen Sparkassen anstatt der Realkapitalbildung dem laufenden Konsum zugeführt werden. Die Defizite der öffentlichen Hand saugen die Kapitaldisposition weg, die sonst der Realkapitalbildung zur Verfügung stehen würde. Dies trägt zu einem weiteren Rückgang der Beschäftigten in der Produktionsgüterindustrie bei.

VIII. DIE ARBEITSLOSIGKEIT UND IHRE BEGLEITERSCHEINUNGEN 1930 UND 1931.

Der durch die Weltwirtschaftskrise und die Finanzkrise verursachte Rückgang der für die Realkapitalbildung verfügbaren Mittel führt zu einer starken Steigerung der schon vorher erheblichen Arbeitslosigkeit in den Kapitalgütergewerben, namentlich im Baugewerbe. Der Bauwirtschaft mit ihren etwa 2 Millionen Beschäftigten wurden im Jahre 1929 etwa 9 Milliarden Mark, im Jahre 1930 7 Milliarden zugeführt; im Jahre 1931 werden es kaum mehr als 4 Milliarden sein. In der Hauptsaison betrug die Arbeitslosigkeit im Baugewerbe im Jahre 1929 etwa 10 %, im Jahre 1930 etwa 40 % und Ende April 1931 beinahe 70 %.

Der starke Rückgang der Bautätigkeit wirkt sich auch in einer Verschlechterung der Beschäftigung in der Industrie der Steine und Erden, im Metallgewerbe, im Holzgewerbe und im Handwerk aus. Die verringerten Einnahmen der Selbständigen, der durch die Arbeitslosigkeit und Kurzarbeit hervorgerufene Einkommensausfall, die wachsende Belastung des Verbrauchs durch Steuern führt zu einem fühlbaren Rückgang des Verbrauchs und zu einem starken Rückgang der Beschäftigung der für den Verbrauch arbeitenden Gewerbezweige, besonders in den Gebieten, wo die Arbeitslosigkeit an sich schon sehr gross ist. In der Textilwirtschaft nimmt die Arbeitslosigkeit schon vor dem

DEUTSCHLAND

Rückgang des Verbrauchs zu, da die Fabriken bei den rückläufigen Rohstoffpreisen die Vorratsproduktion und die Händler die Lagerhaltung soweit als möglich einschränken. In steigendem Masse werden nun auch die unmittelbar für den Verbrauch arbeitenden Gewerbebezüge vom Konjunkturrückgang betroffen: Einzelhandel, Gastwirtsgewerbe, Musikausübung und Schaustellungen. Die Zahl der Arbeitslosen beträgt:

TABELLE IV. DIE STEIGENDE ARBEITSLOSIGKEIT IN DEN DEN KONSUM NAHESTEHENDEN GWERBEN.

| in: | im Januar | |
|--|-----------|---------|
| | 1930 | 1931 |
| Gast- und Schankwirtschaft, Musik u.s.w. | 61.600 | 93.000 |
| Reinigung, hygienische Gewerbe | 13.600 | 29.000 |
| Häusliche Dienste | 70.000 | 125.000 |
| Bekleidungsgerbe | 168.000 | 248.000 |

Die zunehmenden Stilllegungen ganzer Betriebe und die Rationalisierung im Büro, die Tatsache, dass viele kleinere Betriebe - besonders im Einzelhandel - sich auf die Beschäftigung eigener Familienmitglieder beschränken, führt zu einem starken Anwachsen der Arbeitslosigkeit der bei den Arbeitsämtern gemeldeten Angestellten: von 192,000 im Januar 1930 auf 316,000 im Januar 1931.

Zum erstenmal machen sich auch Schwierigkeiten in der Unterbringung von Arbeitskräften in der Landwirtschaft bemerkbar die bis dahin immer unter einem Mangel an Arbeitskräften gelitten hatte. Bei den gesunkenen Verkaufspreisen sucht der Grossbetrieb immer mehr von arbeitsparenden Methoden Gebrauch zu machen. Die bäuerlichen Betriebe suchen mit eigenen Familienangehörigen auszukommen.

So hat sich die Arbeitsmarktlage im Jahre 1930 ausserordentlich ungünstig gestaltet. Seit dem Herbst 1929 nimmt die Arbeitslosigkeit stark zu. Im Dezember 1929 sind bei den Arbeitsämtern 2,5 Millionen verfügbare Arbeitsuchende gemeldet gegenüber 1,9 Ende 1928. Das durch die Saison bedingte Maximum der Arbeitslosigkeit im Februar überschreitet mit 3,400,000 das durch

ARBEITSLOSIGKEIT

die anormale Witterung hervorgerufene Maximum des Vorjahres um 200,000. Während aber im Frühjahr 1929 eine Entlastung des Arbeitsmarktes um 1.7 Millionen eintritt, geht die Zahl der Arbeitssuchenden 1930 nur um 700,000 zurück und erreicht im Juni den tiefsten Punkt mit 2.7 Millionen verfügbaren Arbeitssuchenden. Von da ab steigt die Zahl stetig bis zum Februar 1931, wo sie die 5. Million überschreitet, davon sind 4,970,000 Personen arbeitslos. Auch während der besten Saison ist die Arbeitslosigkeit im Jahre 1931 kaum unter 4 Millionen zurückgegangen.

Die Krise hat sich vorläufig auf die Einkommen der Arbeitnehmer, soweit sie doch im Produktionsprozess stehen, noch wenig ausgewirkt. Die Tariflöhne haben sich noch bis in den Herbst 1930 halten können. Von da ab werden sie unter dem Einfluss der Preis- und Lohnabbau-aktion der Regierung um 4 bis 12 % gesenkt. Schon früher - im Verlauf des Jahres 1929 - hat ein Abbau der übertariflichen Zulagen eingesetzt. Weit grösser aber als der durch Lohn- und Gehaltsabbau entstandene Rückgang ist der durch Arbeitslosigkeit und Kurzarbeit hervorgerufene Rückgang der Arbeitnehmereinkommen. Er wird im Jahre 1930 gegenüber 1929 vom Institut für Konjunkturforschung auf 3.5 bis 4 Milliarden Mark geschätzt. Nach zum Teil auf Schätzungen beruhenden Berechnungen von Kuczynski hat das Gesamteinkommen der Industriearbeiterschaft unter Zurechnung der Bezüge aus Arbeitslosenunterstützungen aller Art und unter Abzug der Steuern und Sozialversicherungsbeiträge folgenden Verlauf genommen, wobei 1927 mit 100 bezeichnet wird:

TABELLE V. ENTWICKLUNG DES GESAMTEINKOMMENS DER ARBEITERSCHAFT.¹

| | 1927 | 1928 | 1929 | 1930 | 1931 (Jan.) |
|---|------|-------|------|------|----------------|
| Geldeinkommen | 100 | 105.2 | 104 | 91.1 | 80.7 |
| Realeinkommen (unter Zugrundelegung der Lebenshaltungskosten) | 100 | 101.4 | 99.8 | 91.3 | 84.9 |

¹ Unter Zugrundelegung der tarifmässigen Löhne einschliesslich der geschätzten übertariflichen Zahlungen, abzüglich der steuerlichen und sozialen Lasten und der Verdienstaussfälle durch Arbeitslosigkeit und Kurzarbeit.

DEUTSCHLAND

Diese ausserordentlich starke Verringerung der Einkommen der Industriearbeiter wird nicht nur zu einer Einschränkung des Verbrauchs, sondern auch der Kapitalbildung führen, was sich dann wiederum in einer verstärkten Arbeitslosigkeit in den Kapitalgütergewerben äussern wird. Wir stellen im Jahre 1931 schon einen fühlbaren Rückgang der Einlagen bei den Sparkassen fest.

Auch das gesamte Produktionsvolumen, der Verkehr bei der Reichsbahn, die Umsätze weisen 1930 einen starken Rückgang auf, der sich 1931 fortsetzt. Der Produktionsindex geht Ende 1930 auf etwa 75% von 1928 zurück. Ganz auffallend ist der Import von Rohstoffen zurückgegangen - 1931 teilweise auf die Hälfte der vorhergehenden Jahre (1928, 1929). Die starke Schrumpfung des Imports hat dazu geführt, dass die Handelsbilanz im Jahre 1930 und im ersten Vierteljahr 1931 stark aktiv geworden ist trotz der gleichzeitigen Verringerung auch des Exports. Diese Aktivierung der Handelsbilanz, auf die Dauer nur möglich bei einer starken Senkung der Einkommen und damit des Verbrauchs von ausländischen Waren, ist bis jetzt durch die Verringerung der Lagerhaltung und den Einkommensausfall der Arbeitslosen, sowie der zusammengebrochenen Unternehmungen herbeigeführt worden.

IX. ZUSAMMENFASSENDE RUECKBLICK UND AUSBLICK.

Die gegenwärtige Krise äussert sich in Deutschland weniger in plötzlichen Zusammenbrüchen von grossen Unternehmungen, in Zahlungseinstellungen von grossen Bankinstituten, in überstürzten Liquidationen von Warenvorräten mit überraschenden Preisrückgängen unter dem Drucke unerwarteter Kreditkündigungen, unter Hinzuzählung der Einnahmen aus Unterstützungsbeträgen für Arbeitslosigkeit (nach Kuczynski). Die Verschlechterung der Gesamtlage durch das Anwachsen der Arbeitslosigkeit tritt deutlich hervor; das ist der Zweck der Wiedergabe dieser Statistik. Würde es sich darum handeln, die Lage der deutschen Arbeiterschaft genau herauszuarbeiten, so müssten bei der Sozialversicherung auch die Beiträge der Arbeitgeber und die Leistungen des Reiches berücksichtigt werden. Kuczynski hat nur die Arbeiterbeiträge, als Belastung des Arbeitereinkommens, in die Berechnung einbezogen; die grossenteils in Naturalien erfolgenden Gegenleistungen (Heilbehandlung, Krankenhäuser u.s.w.) der Sozialversicherung wären schwierig zu erfassen, müssten aber zwecks Vollständigkeit des Bildes hinzugedacht werden.

ARBEITSLOSIGKEIT

als vielmehr in einer allmählichen, aber immer stärker werdenden Schrumpfung der Produktion und der Umsätze, in einem schrittweise erfolgenden Abbau der Bankkredite und in einer über die schlimmsten Befürchtungen hinausgehenden Arbeitslosigkeit. Die Steigerung der Arbeitslosigkeit von 1.3 Millionen in Frühjahr 1929 auf 4.3 Millionen im Frühjahr 1931 ist, nachdem schon ein scharf durchgeführter Rationalisierungsprozess in wichtigen Wirtschaftszweigen in höherem Masse Arbeitskräfte freigesetzt hat, als sie durch andere Zweige wiederaufgenommen werden könnten, hervorgerufen worden durch eine ausserordentlich rasche Einschränkung der Nachfrage nach den Leistungen derjenigen Wirtschaftszweige, die sich bei der allgemeinen Ueberschätzung der wirtschaftlichen Entwicklungsmöglichkeiten, der geldlichen Kapitalbildung und des Konsums in den letzten Jahren stark ausgedehnt haben. Das sind einmal die Produktionsgütergewerbe, denen durch die Einschränkung der Auslandsanleihen, die Drosselung der öffentlichen Ausgaben und den Rückgang der Spartätigkeit plötzlich die Aufträge entzogen worden sind. Zum zweiten sind es die für den verfeinerten Konsum, sowie für einen erhöhten Massenkonsum arbeitenden Beschäftigungen. Die Senkung der Einkommen der in den Produktionsgütergewerben tätigen Personen, die wachsende steuerliche Belastung und eine unter dem Einfluss der Konzentration, der Ueberfremdung wachsende Verschuldung und verschärfte Konkurrenz, die Abnahme der Zahl der zahlungsfähigen selbständigen Unternehmer, das alles lässt diese Gewerbebranche weniger kaufkräftige Abnehmer finden als in den relativ günstigen Jahren 1927-1929.

Damals hatten Auslandskredite eine starke Einfuhr von Gütern für den inländischen Konsum und damit eine Ausdehnung und Verfeinerung des Verbrauchs weiter Schichten der Beamten, Arbeitnehmer und auch der Selbständigen (mit Ausnahme der Landwirtschaft) gegenüber dem Tiefstand des Verbrauchs während der Inflation ermöglicht. Dem gegenüber trifft jetzt unter dem Druck der Reparationen und des Auslandsanleihendienstes der Zwang zur Niedrighaltung des Importes den entbehrlichen Massenkonsum. Der Rückgang des Exportes wirkt gerade in den Konsumgüterindustrien noch verschärfend auf die Arbeits-

DEUTSCHLAND

losigkeit ein. Der Exportrückgang ist dabei allerdings nicht von der Bedeutung für die Arbeitslosigkeit wie z.B. in England.

Einem Rückgang der Arbeitslosigkeit, der erst durch Anpassung der Einkommen und Preise an die durch drückende internationale Verpflichtungen gegebene Lage, durch Ausrichtung der Produktion auf eine starke Ausnützung inländischer Produktionsmöglichkeiten und durch verstärkte Kapitalbildung erfolgen kann, stehen nun erhebliche Erschwernisse entgegen.

Diese Erschwerungen bestehen in mancherlei Bindungen der Preise für sachliche und persönliche Leistungen, einerseits bei wichtigen Rohstoffen, wie bei Kohle, Eisen und Stahl, andererseits bei vielen Einzelhandelspreisen, bei Löhnen und Gehältern, Mieten, Tarifen öffentlicher Betriebe u.s.w.

So gehen die Lebenshaltungskosten nur zögernd zurück von 153 Mitte 1929 auf 135 Anfang 1931, während die Grosshandelspreise in demselben Zeitraum von etwa 138 auf 115 zurückgegangen sind. Die langsame Senkung der Einzelhandelspreise ist ein psychologisches Hindernis für eine starke Lohn- und Gehaltssenkung, ebenso wie die an sich zutreffende Befürchtung, dass Lohnsenkung die Kaufkraft noch weiter schmälert, die Arbeitslosigkeit also zunächst vermehrt.

Die öffentlichen Lasten und die Tarife der öffentlichen Betriebe können wiederum unter dem Drucke der Finanznot nicht gesenkt werden, ja sie sind im Herbst 1930 bei der Reichsbahn sogar erhöht worden. Die hohen Frachten wirken besonders lästig für die Preise und Absatzgestaltung der sperrigen landwirtschaftlichen Produkte, deren Erzeugerpreise stark herabgegangen sind. Auch die Mieten, die bei den Altwohnungen gesetzlich festgelegt und bei den Neubauten durch die Höhe der starken Verzinsung der Baukredite bedingt sind, können sich nicht der allgemeinen sinkenden Tendenz der Preise anpassen.

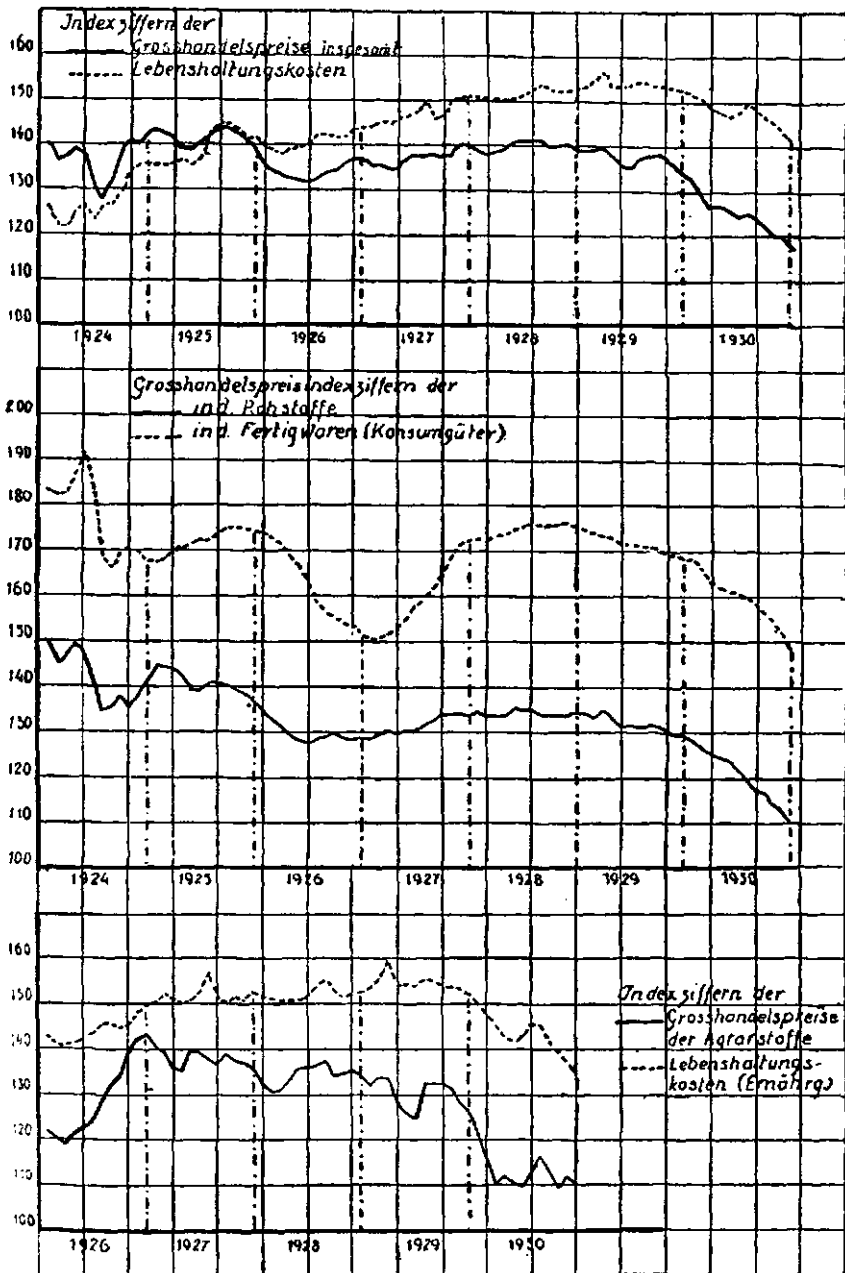
Mieten, Frachten, sonstige öffentliche Betriebstarife, Löhne und Gehälter, sowie Steuern sind nun die konstanten Kosten, die den Vertrieb der Waren belasten. Die relative Starrheit dieser Kosten lässt die Senkung der Grosshandelspreise erst 1930, unter dem Druck des Umsatzrückgangs und in weit geringerem Masse in den Einzelhandelspreisen zum Ausdruck kommen.

ARBEITSLOSIGKEIT

Da nun jede Senkung der Preise für die Leistung einer Gruppe allein eine Gefährdung der Einkommen der betreffenden Gruppe - des Einzelhandels, des Handwerks, der Arbeiter, der Angestellten, der Beamten, der Hausbesitzer, der kartellierten Industrien - und bei der öffentlichen Wirtschaft eine Gefährdung der Einnahmen, und damit der Finanzen überhaupt - mit sich bringt, so wehrt sich jede Gruppe mit dem ihr zur Verfügung stehenden wirtschaftlichen und politischen Einfluss gegen eine, mit den Marktbedingungen gegebene Reduktion ihrer Preise, bezw. ihrer Verdienste. Jede Gruppe wünscht, dass sie anderen Gruppen in der Reduktion ihrer Preise den Vortritt nehme. Die Senkung der Preise einer Gruppe ist zugleich die Voraussetzung für die Senkung der Preise anderer Gruppen - Senkung der Gehälter und Pensionen der Beamten und der sozialen Leistungen ist eine Voraussetzung für die Senkung der Steuern und der öffentlichen Betriebstarife, eine Senkung der öffentlichen Tarife, der Mieten und der Angestelltegehälter ist eine Voraussetzung für die Senkung der Einzelhandelspreise und Lebenshaltungskosten und diese wiederum eine Voraussetzung für eine durchgreifende Lohn- und Gehaltssenkung.

Da man nun einen weiteren, durch die Marktverhältnisse und die Wirtschaftsbedingungen Deutschlands gegebenen, aber durch die vorher geschilderten Bindungen aller Art aufgehaltenen Rückgang der Preise und der Einkommen erwartet, so entsteht eine allgemeine Zurückhaltung in der Erteilung neuer Aufträge. Der drohende Rückgang lähmt jede Unternehmungslust. Daher ist auch trotz des starken latenten Kapitalbedarfs die Nachfrage nach langfristigem Kapital zurückgegangen, sodass der Zinsfuß seit 1930 wieder einen Rückgang erfahren hat. Gerade für die Bautätigkeit ist es ein grosses Hindernis, dass eine begreifliche Scheu davon abhält, bei dem jetzigen Preisniveau Bauaufträge zu erteilen und die entsprechenden Kapitalien aufzunehmen, mit ihrer starren Zinsen- und Tilgungslast, während nur Erträge zu erwarten sind, die dem niedrigeren künftigen Preis- und Einkommensniveau angepasst sein werden.

Da auch international, vermutlich im Zusammenhang mit der Goldverknappung und einer falschen Verteilung des Goldvorrats schon ein starker Rückgang des Preis- und Einkommensniveaus



DEUTSCHLAND

eingetreten ist, so wird der in Deutschland zu erwartende Rückgang, der durch die internationalen Zahlungsverpflichtungen in seiner Tendenz verschärft wird, sich in besonderer Stärke auswirken.

Aeusserst lästig ist dabei für die deutsche Wirtschaft das Gleichbleiben der auf Geld lautenden Schuld- und Zinsenlasten. Das bedeutet eine relative Zunahme dieser Lasten. Bei weiterem Absinken der Preise und Erträge werden noch manche Unternehmungen der steigenden Schuldenlast zum Opfer fallen; dies gilt besonders für die landwirtschaftlichen Betriebe, deren Bestand man vorläufig durch Schutzzölle und Entschuldungsaktionen aufrecht zu erhalten bestrebt ist. Diese Unsicherheit im Bestand der Unternehmungen und der Betriebe, die Gefahr einer weiteren Erhöhung der steuerlichen Belastung, die Furcht vor - mit der Wirtschaftsnot zusammenhängenden - politischen Unruhen führt zu einem mangelnden Vertrauen auf die Sicherheit von Anlagen in Deutschland und hat so schon seit 1929 zu einer beträchtlichen Kapitalflucht in das benachbarte Ausland geführt. So ergibt sich das Paradoxon, dass ein Land mit starkem Kapitalmangel und hohem Zinsfuss Kapital in Länder mit Kapitalüberfluss ausführt und sich gleichzeitig die fehlenden Mittel zum Teil aus denselben Ländern zu einem mit erhöhter Risikoprämie belasteten Zinsfuss beschaffen muss.

Dresden, April 1931.

SYNOPSIS DU RAPPORT SUR LE CHOMAGE EN ALLEMAGNE PAR ROBERT WILBRANDT, PROFESSEUR A L'UNIVERSITE DE DRESDE, ALLEMAGNE. *

PREMIÈRE SECTION: LES ÉPOQUES DE FAIBLE CHOMAGE.

Période 1910-14. Le chômage moyen était faible durant les années d'avant-guerre. D'après les statistiques industrielles, il oscillait entre 1,5 et 4,8 % des effectifs syndicaux; parmi les employés, il est même descendu en 1910 jusqu'à 0,4 %. Toutefois, du fait du chômage saisonnier, le nombre des sans-travail s'élevait en janvier et février au chiffre de $\frac{3}{4}$ à 1 million (en été: 150.000 à 300.000). C'étaient des années d'essor, caractérisées par une forte augmentation de la production et surtout des exportations, et par conséquent par une demande accrue des forces de travail. Cette demande dépassa même le rythme d'accroissement de la population et l'industrie se développa aux dépens de l'agriculture. Les salaires nominaux s'élevèrent, mais le coût de la vie augmentant aussi, les salaires réels ne progressèrent que modérément.

Période 1914-1918. Le chômage, qui avait dépassé 22 % au moment où la guerre éclata, diminua rapidement et se maintint bas durant toute cette période. L'appel des hommes sous les drapeaux réduisit l'offre de la main d'oeuvre masculine; à sa place, fut utilisé le travail des femmes dont le nombre atteignit, en 1917, 115 % de son niveau au 1er juin 1914. Dans les industries transformées pour les besoins de la guerre, le nombre des salariés augmenta; par contre, les industries textiles, celles des matériaux de construction et du bâtiment subirent un recul et, par endroit, les ouvriers du textile chômèrent. Les salaires nominaux s'accrurent fortement dans les industries de guerre, peu ailleurs; les salaires réels, au contraire, baissèrent considérablement par suite de l'élévation du coût de l'existence.

Période 1919-23 (Inflation). Durant cette période, le chômage présenta de très fortes fluctuations, mais avec ten-

* Assisté par M. le Dr. Gerhardt Isenberg, Université Technique de Dresde, Allemagne.

SYNOPSIS

dance dominante faible. Il disparaissait à chaque glissement du cours du mark pour réapparaître dès que celui-ci montrait une certaine stabilité. L'époque de l'inflation, qui est aussi celle de la dépréciation intérieure du mark, permet d'établir un autre parallèle: alors que les personnes âgées, Incapables de travailler, mouraient de faim, des occasions de travail s'offraient à tous ceux qui pouvaient employer leurs bras; mais ce ne fut bientôt plus, en définitive, que moyennant un salaire réel inférieur à la moitié du salaire réel d'avant-guerre. Des mesures officielles relatives à l'emploi des travailleurs, ainsi que des prescriptions de démobilisation, visèrent à assurer, autant que possible, la stabilité des emplois; d'autre part, une notable diminution de la productivité résulta de la sous-alimentation, des troubles politiques et de l'application sans discernement de la journée de huit heures. Toutes ces causes augmentèrent naturellement les possibilités d'occupation des travailleurs.

| | Nombre des travailleurs occupés | |
|--|--|---------------|
| | Niveau d'avant-guerre | Année 1921/22 |
| Mines de charbon | 918.000 | 1.212.000 |
| Industries métallurgiques et mécaniques | 1.596.000 | 1.975.000 |
| Chemins de fer du Reich | 700.000 | 1.100.000 |
| | (pour une réduction du trafic $\frac{1}{2}$ environ) | |

En résumé, une certaine marche à vide entraînant tant bien que mal l'utilisation des forces de travail, une production demeurant faible, un niveau d'importations et d'exportations extrêmement réduit.

SECONDE SECTION: LES ÉPOQUES DE FORT CHOMAGE.

Période 1923-24. Le nombre des chômeurs s'éleva, à la fin de 1923, au moment de la stabilisation du mark, à 3-4 millions (28 % des effectifs syndicaux). Puis, le relèvement économique de la Ruhr, à la suite de l'occupation, permit la résorption momentanée du chômage, après quoi le besoin se fit

SYNOPSIS

sentir de la restauration de la capacité de concurrence nationale sur les marchés mondiaux. Tant que cette condition ne se trouva pas réalisée, en effet, le manque de devises étrangères conduisit à une restriction de crédits et par suite à un nouveau chômage.

Période 1924-26. Après que le taux de l'intérêt se fut élevé jusqu'à 40 % et plus, comme conséquence du manque de capitaux, la mise en vigueur du Plan Dawes fournit des possibilités de crédits et ramena le chômage à son niveau d'avant-guerre. Il n'atteignit, en juin 1925, que 3,4 %. Cependant, la "crise d'épuration", en automne 1925, éliminant les établissements nés de l'inflation et désormais non-viables, entraîna une recrudescence du chômage (Décembre 1925: 20 %). Il demeure à 18 % en 1926 malgré les mesures officielles adoptées.

L'année 1927. Les prêts étrangers facilitèrent en 1927 un essor général, provoqué non seulement par le développement des constructions d'utilité publique, mais aussi par l'extension de la rationalisation; cet essor, parti des industries construisant des moyens de production, s'étendit bientôt aux industries de biens de consommation qui, à leur tour, vivifièrent les premières. Le nombre total des sans-travail s'abaissa ainsi de 2.5 millions en janvier jusqu'à un minimum de 870.000 en automne 1927.

Période 1928-29. Entravée par le manque de capitaux, la construction des moyens de production se ralentit durant cette période, tandis que la production dans son ensemble s'accrut quelque peu jusqu'au milieu de 1929. Des constructions d'habitation, subventionnées officiellement, atténuèrent la régression de la conjoncture. Cependant, les industries rationalisées n'eurent plus que de faibles besoins de main d'oeuvre. Les chiffres d'été du chômage s'élevèrent ainsi, parallèlement au nombre des faillites, de 5,8 % en 1927 à 10 % en 1929.

TROISIÈME SECTION: LA PÉRIODE 1930-31.

Coup d'oeil rétrospectif. Le chômage, essentiellement supérieur depuis 1924 à son niveau d'avant-guerre, s'élevait encore en 1928 et 1929 à un million de sans-travail. Il provoqua même un chômage secondaire par suite de la réduction du pouvoir d'achat de chaque chômeur à 1.000 RM environ. Les prêts étrangers cessèrent dès 1929 de soutenir les industries des moyens de production. Comme contrepoids, agirent en 1928 et 1929:

- (a) l'activité du bâtiment et de divers travaux subventionnés par l'État;
- (b) une forte consommation, rendue possible par la hausse des salaires réels - jusqu'au niveau d'avant-guerre pour les ouvriers spécialisés, à 20 % environ au-dessus de ce niveau pour les ouvriers non-spécialisés - ainsi que par l'augmentation des traitements des employés;
- (c) l'accroissement des exportations jusqu'au niveau d'avant-guerre en 1919 (compte tenu de la baisse du pouvoir d'achat de la monnaie).

La crise.

- (a) Crise intérieure - : Crise des finances d'état et des finances locales qui supportent de multiples charges: réparations, dépenses de haut personnel, dépenses sociales croissantes (chômage!), et sont affaiblies par une diminution du rendement des impôts et des exploitations d'état (stagnation des affaires) -. Baisse d'activité dans le bâtiment de 9 milliards RM en 1929 à un chiffre probablement peu supérieur à 4 milliards RM en 1931, tandis que le nombre d'ouvriers du bâtiment passe de 1,2 million en 1924 à 1,9 million en 1929.
- (b) Crise économique mondiale. - L'écroulement des prix des matières premières bouleverse tous les calculs. Les exportations, dirigées surtout vers l'Europe, baissent relativement peu.

SYNOPSIS

mais ne permettent pas de maintenir complètement l'activité des usines agrandies à l'aide des prêts étrangers et destinées à produire pour l'exportation.

(c) Données d'ensemble: Accroissement du chômage à 3,2 millions en 1930, à 5 millions au début de 1931. (au printemps, époque de reprise saisonnière: 4,3 millions.)

Circonstances aggravantes.

(a) Manque de souplesse du mécanisme économique: prix et salaires liés dans une large mesure-Marché des capitaux figé. Taux de l'intérêt lui-même dépassant 8 % en période de dépression.

(b) Crise de confiance: paralysie des affaires due aux craintes politiques et aux inquiétudes économiques. - Exode des capitaux.

(c) Balance des comptes de l'Allemagne: Avec une charge de réparations de 2 milliards RM en moyenne et un service d'intérêt des prêts étrangers de 1,5 milliard RM environ, la balance des comptes de l'Allemagne exige un excédent d'exportation de 3,5 milliards RM. Cette condition s'est réalisée effectivement en 1930 grâce à la baisse des prix des matières premières et à la réduction des importations, celle-ci due à son tour à la limitation de la production, c'est-à-dire au chômage. Tout recul du chômage augmenterait donc la consommation, c'est-à-dire le montant des importations, d'où insuffisance correspondante des devises, restriction des crédits, limitation de la production et, par suite, chômage.

SYNOPSIS OF REPORT ON UNEMPLOYMENT IN GERMANY
BY PROFESSOR ROBERT WILBRANDT, TECHNISCHE HOCHSCHULE,
DRESDEN, GERMANY. *

I. PERIODS OF LOW UNEMPLOYMENT.

1910-1914. In these pre-war years unemployment due to economic depressions was slight. According to the trade union statistics, the percentage of members of trade unions unemployed in these years ranged from 1.5 to 4.8; among salaried workers it was as low as 0.4 per cent in the year 1910. In the months of January and February, however, seasonal unemployment usually drove the total number of unemployed up to from three-quarters of a million to one million (in summer the number was from 150,000 to 300,000). These were years of industrial prosperity of marked increase in production, particularly production for export, and, therefore, of increased demand for labour. The demand for labour exceeded the growth of population. Industry expanded at the expense of agriculture. Nominal wages rose, but so also did the cost of living; with the consequence that real wages rose only in certain districts.

1914-1918. Unemployment, which had risen to 22 per cent of trade union membership on the outbreak of war, rapidly declined and remained at a low level. Military service diminished the supply of male labour, for which female labour had to be substituted; by 1917 the number of women workers had risen 115 per cent of the level at 1st June, 1914. The number of wage earners employed increased in industries producing military requirements; the textile, clay, pottery and glass and building industries declined, and in the textile industry there were actually workers unemployed. Nominal wages rose markedly in the industries engaged in supplying military requirements, but very little elsewhere. Real wages

* With the collaboration of Dr. Gerhardt Isenberg, Technische Hochschule, Dresden.

SYNOPSIS

declined, considerably in some industries, owing to the increasing price of food stuffs.

1918-1923 (the period of currency inflation). During these years the volume of unemployment varied greatly, but was on the whole slight. It vanished as the exchange rate of the mark declined, but returned as the exchange rate became temporarily more stable. It also varied with the measure of the internal depreciation of money, and thus of the circulation of money. While old people incapable of work were starving, there was employment for all the able-bodied, at the last, it is true, only at a real wage which had fallen to less than half the pre-war level. Public contracts ("creation of employment") and the special demobilisation measures, which made jobs as secure as possible, together with reduced output (due to under-nourishment, political unrest and a general eight-hour day) increased opportunities of employment.

| | Number of persons employed | |
|------------------|----------------------------|-----------|
| | Pre-war. | 1921-22. |
| Coal mining | 918,000 | 1,212,000 |
| Metal industry | 1,596,000 | 1,975,000 |
| Federal railways | 700,000 | 1,100,000 |

The number employed on the railways at the latter date was co-incident with a decline in traffic by one-third.

To sum up, there was a definite economic wastage, labour was dragged along in its wake, production remained low and imports and exports markedly declined.

II. PERIODS OF INCREASED UNEMPLOYMENT.

1923-1924. With the stabilisation of the mark the number of unemployed rose to from 3 to 4 million (28 per cent of trade union membership) at the end of 1923. The period of inflation left as its legacy the devastation of the Ruhr conflict, and, when this was settled and unemployment dropped in consequence, it was necessary to restore Germany's lost capacity

SYNOPSIS

to compete in the markets of the world. So long as this task remained unfulfilled the shortage of foreign bills led to restrictions on credit and thus to fresh unemployment.

1924-1926. After the rate of interest had shot up to 40 per cent and over, as an expression of the shortage of capital after the inflation, the coming into force of the Dawes Plan resulted in opportunities of credit, and a consequent decline of unemployment to the pre-war level. In June 1925, the percentage of trade union members unemployed was only 3.4. The "rehabilitation crisis" in the autumn of 1925 wiped out the unsound undertakings founded in the inflation period and drove unemployment up again. In December 1925, the percentage of trade union members unemployed was 20. It remained at 18 in 1926 in spite of public contracts.

1927. Foreign loans facilitated a general boom in trade, brought about not only by the housing policy of the public authorities but also by rationalisation. It began with the production of capital goods, then affected the industries producing consumers' goods, and thence led to a revival in the associated industries supplying the means of production. The total number of persons seeking work fell from 2½ millions in January to 870,000 in the autumn of 1927, the lowest level reached.

1928-1929. Hampered by shortage of capital, the creation of capital goods declined, although production in general continued to increase somewhat up to the middle of 1929. Public housing subsidies alleviated the effects of the economic decline. Nevertheless, the rationalised undertakings, required fewer workers. Parallel with bankruptcies, the summer unemployment figures rose from 5.8 per cent in 1927 to 10 per cent in 1929.

III. THE PERIOD OF 1930-1931.

The number of unemployed, which since 1924 had been considerably higher than in the pre-war period, in 1928 and 1929

SYNOPSIS

amounted to one million even in July. By reducing purchasing power by about 1000 Reichsmarks for each unemployed person, it produced a kind of secondary unemployment. After 1929 foreign loans ceased to keep the industries producing capital goods active.

In the years 1928 and 1929 the following factors served as a counterpoise: (a) building and excavation work financed by public assistance; (b) increased consumption made possible by rising real wages (pre-war level for skilled workers and about 20 per cent higher for unskilled) and higher salaries in the public service; (c) increase in exports to the pre-war level in 1929 (after allowing for the depreciation of money).

The Collapse.

(a) Internal. State and communal finances broke down under the burden of reparations, high salaries and increasing expenditure for social purposes (unemployment) accompanied by diminished revenue from taxes and public undertakings (stagnation of trade); building activity declined from 9 milliards of Reichsmarks in 1929, to, it may be estimated, scarcely more than 4 milliards in 1931, whereas the number of building workers rose from 1,200,000 in 1924 to 1,900,000 in 1929.

(b) World economic depression. The collapse of raw materials prices upset all calculations. Exports, mainly destined for European countries, fell relatively slightly, but did not suffice fully to utilise plants producing for export which had been extended by means of foreign loans.

(c) General results: Rise of unemployment to 3.2 million in 1930 to 5 million at the beginning of 1931 (4.3 million in the spring, due to seasonal improvement).

Aggravating Circumstances.

(a) Economic paralysis: rigidity of prices and wages; capital market, interest rate of over 8 per cent in spite of the depression.

SYNOPSIS

(b) Lack of confidence: Inactivity due to political apprehensions and economic expectations; flight of capital.

(c) The German balance of payments: burdened with an average of 2 milliards of marks for reparations and nearly 1½ milliards for interest on foreign loans, Germany requires an export surplus of about 3½ milliards of marks, such as was attained in 1930 through the fall in the world price of raw materials and diminished imports, with a coincident curtailment of production, that is, through unemployment. A decline in unemployment would bring about increased consumption, therefore increased imports and, therefore, *ceteris paribus*, shortage of foreign bonds, which again would involve restriction of credit, with renewed curtailment of production and unemployment.

FLUCTUATIONS IN UNEMPLOYMENT IN FRANCE
BY DR. F. C. BENHAM, LONDON SCHOOL OF ECONOMICS AND
POLITICAL SCIENCE.

| | Page |
|--|------|
| SYNOPSIS | 194 |
| PART I. THE COURSE OF UNEMPLOYMENT | 197 |
| PART II. THE SPECIAL CIRCUMSTANCES OF FRANCE | 200 |
| PART III. WAGE-RATES AND PRODUCTIVITY | 205 |
| PART IV. INTERNATIONAL ASPECTS | 210 |
| INDEX OF MAIN TABLES | 212 |
| ADDENDUM | |
| SYNOPSIS (texte français) | 219 |
| • (deutscher Text) | 223 |

SYNOPSIS

PART I. THE COURSE OF UNEMPLOYMENT.

It is essential to realise the limitations of French Statistics of unemployment.

The absolute numbers of unemployed as revealed by the three censuses of 1911, 1921, and 1926, within the period 1910-1930, were 209,000, 537,000, and 243,000 respectively.

During the period 1921-1930 the number of "chômeurs secourus" at the end of the month has never reached 100,000 and since September 1923 has frequently been below 1,000. The number of "demandes d'emploi non satisfaites" has also never reached 100,000 and has usually been below 20,000. These indices, however, only serve to show roughly when unemployment assumed significant proportions. Such data as exist converge towards the conclusion that France has been comparatively free from unemployment over most of the post-war period. The contrast with the post-war experience of Great Britain and Germany is, therefore, striking.

The post-war periods distinguished are:

- (1) The immediate post-war period 1919-1923, which began with an appreciable amount of unemployment owing to the difficulties of demobilisation. The boom of 1920 and the slump of 1921-22 were not as marked as in some other countries, notably Great Britain.
- (2) The period from 1923 towards nearly the end of 1930, during which unemployment, with the exception of the year 1927 when the exchange-rate of the Franc was stabilised in terms of gold, was practically unknown.
- (3) The end of 1930 when France at last began to experience the effects of the world slump.

PART II. THE SPECIAL CIRCUMSTANCES OF FRANCE.

France has greatly developed her coalmining and iron and

FRANCE

steel industries. Largely owing to the re-annexation of Alsace and Lorraine, she has become more industrialised. Yet France remains predominantly agricultural and produces substantially for a steady and protected home market. She is still essentially a country of the small proprietor and the small concern. Trade Unionism is weak and restrictions upon the introduction of new methods and mobility are almost non-existent. She is, therefore, less vulnerable to unemployment than Great Britain or Germany.

Consideration is made of:

- (1) The comparatively small proportion of the population liable to unemployment.
- (2) The stationary population.
- (3) The demand for labour.
- (4) Foreign trade.
- (5) The control of immigration.

(1) This proportion is much less than in Great Britain.

(2) Unemployment is just as likely in a stationary as in an expanding or declining population.

(3) The demand for labour in post-war France was substantial owing to the Governmental expenditure in devastated areas, etc. Moreover, 1.4 million men had been killed in the war. But this alone does not explain the comparative absence of unemployment.

(4) The bulk of France's exports go to the United States, her European neighbours, and her colonies. France has, therefore, been comparatively immune from the reactions of the industrialisation of the Eastern Countries and Australia and of the reduction in the purchasing power of countries relying mainly on their export of foodstuffs and raw materials.

(5) During the post-war period, France has controlled the flow of immigrant labour in such a way as to make it a balancing

FLUCTUATIONS IN UNEMPLOYMENT

factor. In this manner, the burden of unemployment has, in times of crisis, notably in 1927 and 1931, been mitigated.

PART III. WAGE RATES AND PRODUCTIVITY.

Before the war the relation between wage-rates and the prices of the products of French labour was such as to provide fairly full employment. A similar relation, or even one still more favourable to employment, has prevailed in the post-war period.

No disparity in the wages-prices relationship similar to that in post-war Britain has occurred in France.

The absence of such a disparity is attributed to monetary policy and labour conditions.

Statistics do not appear to support the view that a depreciating currency gave France a great advantage as an exporter. The undervaluation of the franc in 1927 - in striking contrast to the overvaluation of the pound sterling in 1925 - made it possible for both retail and wholesale prices to rise from 1927 to 1930.

In the period 1926-1930, also, the notes in circulation in France and the gold stocks of the Bank of France increased considerably.

The rôle played by monetary policy has, therefore, been important in preventing the emergence of unemployment of the magnitude experienced by Great Britain.

Other main factors have been comparative weakness of Trade Unionism, the absence of a comprehensive insurance scheme with fairly substantial benefits, and the greater flexibility of her system, assisted by controlled immigration.

PART IV. INTERNATIONAL ASPECTS.

France has not been so strongly affected by world forces as Great Britain. Yet her economic system is not a "closed" one and, like Great Britain, she is linked by a multitude of factors to other leading countries.

FLUCTUATIONS IN UNEMPLOYMENT IN FRANCE*

PART I. THE COURSE OF UNEMPLOYMENT.

It is essential, at the outset, to realise the limitations of French statistics of unemployment. A reliable indication of the absolute number of unemployed is available for only three dates during the period 1910 to 1930, namely, the three census dates of 5th March, 1911, 6th March, 1921 and 7th March, 1926. Some indication of fluctuations in unemployment is provided for the pre-war period by the Trade Union returns and for the post-war period by two weekly indices: *chômeurs secourus* and *demandes d'emploi non satisfaites*. But these two indices do not show quantitative variations in unemployment. The number of *chômeurs secourus* or of *demandes d'emploi non satisfaites* from time to time is not even approximately a constant proportion of the total number of unemployed from time to time. These indices serve only to show roughly the periods when unemployment assumed comparatively significant proportions. It would be misleading to use either of them as a measure of the relative extent of fluctuations in unemployment from time to time. If such a measure were urgently required, the best course would be to use some such index as that constructed by M. Jules Dunuc, which is reproduced in the Tables and explained in the Notes.^o The main point is that M. Dunuc uses the logarithms of the numbers of *chômeurs secourus*, and not the numbers themselves, for his index. This has the advantage of lessening the enormous percentage fluctuations shown by the actual numbers, but it is open to various objections and should be used only with caution.¹

The census returns probably afford a fair indication of the number of unemployed at the time when they are taken. Workers are asked to name their present employer. It is true that some

* I should like to thank Mr. S. Brand for his aid in compiling the Statistics.

^o Unfortunately, M. J. Dunuc's index presented in Supplementary Table V, together with the Notes explaining it, cannot be published on account of lack of space.

¹ Sometimes the method of taking the percentage of *demandes d'emploi non satisfaites* to the total *demandes d'emploi* is

FLUCTUATIONS IN UNEMPLOYMENT

workers who are unemployed may out of mistaken pride name their last employer, but it seems unlikely that many will do this. Workers who are still employed but are working short time will be shown as employed.² Workers out of work owing to illness are not shown as unemployed. Workers who are passing from one job to another and who are caught at the time of the Census without an employer are, of course, included among the unemployed. There exists one gap, however. Home workers are not asked to name their employer and, therefore, unemployed home workers are not included in the total of unemployed shown by the returns. The totals are as follows:

| Date | Men | Women in Thousands | Total |
|----------------------------------|-----|-----------------------|-------|
| 5th March, 1911 | 140 | 69 | 209 |
| 6th March, 1921 (90 Departments) | 325 | 213 | 537 |
| 7th March, 1926 („ „) | 169 | 74 | 243 |

To these figures may be added the estimate of the French Ministry of Labour for January 1931, given by M. Piquenard at Geneva, of about 350,000 wholly unemployed and about 1,000,000 on short time.

Compare these totals with those of the two indices mentioned. From 1921 to 1930, inclusive, the number of *chômeurs secourus* at the end of the month has never reached 100,000 and, since September 1923, has frequently been below 1,000; the number of *demandes d'emploi non satisfaites* has also never reached 100,000 and has usually been below 20,000. The methods of obtaining these two indices, and their limitations, are described fully in the Notes. Here it need only be pointed out (a) that the great majority of the 233 communal and 31 departmental funds for providing unemployment benefit used. (Compare the German *Andrangsziffer*.) But this provides a measure of labour turnover rather than of unemployment. Moreover, in the case of France, the number of unemployed persons applying at the Exchanges is by no means a constant proportion of the total number of unemployed.

² Despite the announcement to the contrary of M. André Fallières when he was Minister of Labour. See M. Henri Fuss. "Etude Critique des Statistiques du Chômage en France", in "Revue d'Economie Politique", Janvier-Février, 1927, page 40.

FRANCE

- with the notable exception of the Paris Fund - only operate when there is marked distress, due to unemployment, in their districts and (b) that it is well-known that only a majority of the unemployed have recourse to the Public Employment Exchanges.³

What conclusions, then, can be drawn as to the course of unemployment in France? It would be useless to try to discuss, on the basis of the scanty data available, fluctuations from month to month or seasonal movements or the distribution of the unemployed at different times. The one outstanding conclusion is that over most of the post-war period France has been comparatively free from unemployment. This is shown by the Census returns and, despite their limitations, by the two indices discussed above. It is supported by numerous competent French observers and the existence of a significant amount of unemployment or even short time cannot be concealed. It is a very striking fact when contrasted with the post-war experience of Great Britain, Germany, and other countries. The main task of this Report will be to examine the reasons for this phenomenon.

First, however, certain periods may be distinguished. The immediate post-war period 1919 to 1923 began with an appreciable amount of unemployment due largely to the difficulties of demobilisation. The boom of 1920 was not by any means as marked as in some other countries, notably Great Britain. France had been ravaged by war and despite the addition of Alsace-Lorraine she had to devote her energies to the task of reconstruction. Thus she was affected by the slump of 1921 and 1922, but not nearly as much as some other countries, since the preceding boom had not been as great. From about September 1923 to nearly the end of 1930, with the exception of 1927, when the exchange-value of the franc was stabilized in terms of gold, unemployment was practically - in the phrase of M. Roger Picard⁴ - "inconnu". Towards the end of 1930 France at last began to feel the effects of the world slump. Unemployment became quite

³ "Industrial and Labour Information" Vol. XXII, January 17, 1927. "The Development of Unemployment in France."

⁴ Revue d'Economie Politique, Mai-Juin 1930, page 960.

FLUCTUATIONS IN UNEMPLOYMENT

appreciable and was increasing in the first months of 1931.

The period of comparative absence of unemployment was thus September 1923 until towards the end of 1930, with the exception of 1927.

PART II. THE SPECIAL CIRCUMSTANCES OF FRANCE.

It is true that post-war France has greatly developed almost all her industries, notably coal-mining, iron and steel, textiles, and heavy chemicals, as the index of production (see Tables and Notes) shows. She has become more industrialized, largely but by no means entirely owing to the additions of Alsace and Lorraine. Yet this industrialisation seems, as it were, superimposed upon a more stable economy which still persists. The great bulk of the area of France is still predominantly agricultural, producing, for the most part, for a steady and protected home market. A very large proportion of her industries - metallurgical, textile, and others - are situated in rural or semi-rural areas; the ownership of small plots of land is widespread, industrial occupations providing the owners or their relatives with bye-employments; and France is still, essentially, a country of the small proprietor and the small master. Consider, for example, the silk trade. In Lyons itself, there are not more than half-a-dozen real "factories" (although there are a fair number of workers engaged on sample pieces); the majority of silk workers are scattered in the small towns around Lyons. Again the bulk of the silk industry of St. Etienne is still carried on by small masters or by home-workers dowered with electric power in their homes for running their looms. Similarly with the glove industry of Grenoble: probably two-thirds of the workers are home-workers scattered in the villages and country districts around Grenoble. Take even the cotton industry. Rouen (after Lille) is an important centre but the bulk of the factories are in the rural areas within twenty or thirty miles of the town. The same is true of the Vosges textile industry. Thus it is easy to understand why at the Census of 1926 there were only 1½ million workers in establishments employing more than 100 persons. Again, Trade Unionism is weak and restrictions upon the mobility of labour and the introduction of new methods are

FRANCE

practically non-existent. Thus it is fairly clear that France is not as vulnerable as, for example, Great Britain or Germany, to unemployment. Her comparative freedom from unemployment is to be explained by the comparative absence of the factors making for unemployment in those countries. After all, it is surely the presence, and not the absence, of great unemployment which should be regarded as abnormal. France, therefore, can be considered as throwing into relief, during this period, the causes of unemployment elsewhere.

But a word of caution is advisable. The ultimate aim of statesmanship is usually considered to be the promotion of the general welfare. If full employment, however achieved, were adopted as the sole and ultimate aim, the consequence might be grave injury to the general welfare. To take an extreme example, unemployment might be "cured" by giving up some of the advantages of foreign trade and of labour saving devices, (including "rationalisation"), but the "cure" might be worse than the disease. What is required is the abolition of marked unemployment by measures which do not injure economic progress and the general welfare of the community, including the wage earners themselves.

Comments will now be made upon:

- (1) The comparatively small proportion of the population liable to unemployment.
- (2) The stationary population.
- (3) The demand for labour.
- (4) Foreign trade.
- (5) The control of immigration.

The relation between wage-rates and productivity, which the writer considers more fundamental than the above, is reserved for Part. III.

(1) In 1926 the population of Great Britain was about 44 million and the number of employed persons, excluding domestic servants, agricultural workers, and those engaged in administration, was about 13 million, or nearly 30 per cent. In France the corresponding numbers were 41 million and 6.7 million, a percentage of only about 17. Thus we should expect the propor-

FLUCTUATIONS IN UNEMPLOYMENT

tion of unemployed to the total population to be less in France than in Great Britain. But this is, of course, only part of the story.

(2) During the period in question - and, indeed, for many years - the population of France has remained approximately stationary in numbers. Thus in 1921 it was about 39 million and in 1929 about 41 million, over 1 million of the increase being due to net immigration. This fact is often advanced as a cause of France's comparative freedom from unemployment. Taken alone, however, it explains nothing. Unemployment is just as likely in a stationary as in an expanding or declining population. Indeed, in some circumstances an expanding population has the advantage. For if the demand for products of all kinds is expanding and if at the same time the proportions of different products demanded are changing - as in nineteenth century England or America - then adjustment is easier with an expanding population. The flow of new labour can be directed mostly into those channels in which demand is expanding most, and problems such as the present British problem of transferring some 200,000 "surplus" coal miners to other occupations, do not arise.

(3) The demand for labour in post-war France was comparatively great owing to Governmental expenditure (in anticipation of Reparations payments) on the devastated areas. Governmental expenditure on roads, bridges, the fortification and strengthening of the Eastern frontier, and similar matters, may be mentioned. There was also a shortage, due to the war, of capital equipment, including houses. At the same time, labour was comparatively scarce. 1.4 million men had been killed in the war and several hundreds of thousands were seriously injured, while the additional labour supply due to excess of youths entering the labour market over men leaving it through retirement or death, was comparatively small. But the demand for anything, including labour, varies with its price, so that the absence of disequilibrium between wage-rates and the (marginal) productivity of labour, dealt with in Part III, is needed to complete the argument.

FRANCE

(4) Foreign Trade.

French domestic exports and retained imports of merchandise, measured in sterling, have been as follows since 1924.

| Year | Exports £ millions | Imports £ millions |
|-------------------------|-----------------------|-----------------------|
| 1924 | 497.0 | 471.0 |
| 1925 | 454.2 | 434.3 |
| 1926 | 388.1 | 390.5 |
| 1927 | 445.6 | 427.8 |
| 1928 | 419.9 | 432.3 |
| 1929 | 403.2* | 469.3* |
| 1930 (first six months) | 182.5 | 216.2 |

* provisional.

There are several possible connections between foreign trade and unemployment which seem to deserve mention.

(a.) The population of France remained comparatively stationary while that of the rest of the world was increasing. If the per capita demand of the rest of the world for her exports was fairly rigid then the total demand for the exports would increase. It is true that some French exports are speciality goods - such as wines, expensive clothing, and "articles de Paris" - for which there is a special demand and for which satisfactory substitutes are not readily available. But analysis of her exports suggests that less than a quarter of the total falls into this class and that this part of her exports has remained a fairly constant proportion of the total - that is to say, that it has declined rather than expanded.

(b.) It is often said that France is "well balanced" as between agriculture and industry and is, therefore, less liable to unemployment than countries not so "well balanced". Undoubtedly small and comparatively self-sufficing regions are less liable to unemployment than regions of specialized industry supplying a wide market. For large-scale production can hardly exist, fluctuations in some industries may affect fluctuations in others, and adjustments can be made more easily. At the same time it may be pointed out that the great advantages of territorial division of labour can be attained only by localisation of industry and foreign trade, except in the case of regions of appropriately

FLUCTUATIONS IN UNEMPLOYMENT

varied resources. To some extent, France may be regarded as a collection of comparatively self-supporting regions, producing most of their own food and clothing, with the "grande industrie" and foreign trade superimposed. At the census of 1926 only 9 million persons out of 40 millions (excluding immigrants) were living in departments in which they had not been born. Yet the extent to which this is true can easily be exaggerated for the foreign trade of France is quite appreciable and is greater per head than that of quite a number of countries.

(c.) Attention may be drawn to the fact that the bulk of France's exports go to the United States, her European neighbours, and her colonies. She has thus been comparatively free from the reactions of the industrialisation of the Eastern countries and Australia and of the recent reduction in purchasing power of countries relying largely on their export of food-stuffs and raw materials.

(5) During most of this period the demand for labour has been intense; there has been a shortage of labour (at current wage-rates), and immigration has been encouraged. When, however, unemployment has threatened, immigration has been discouraged and repatriation of immigrants who might be replaced by unemployed Frenchmen has been carried out as far as possible. This was the case in 1921, 1927, and at the present time. The figures are as follows: In 1921 there were 1½ million foreigners in France. In 1926 there were 2½ million, and the total continued to increase until towards the end of 1930.

Total Number of Immigrants for Agriculture and Industry

| Year | Introduced (thousands) | Repatriated (thousands) |
|------|---------------------------|----------------------------|
| 1920 | 194 | 12 |
| 1921 | 80 | 63 |
| 1922 | 193 | 51 |
| 1923 | 274 | 60 |
| 1924 | 265 | 47 |
| 1925 | 176 | 54 |
| 1926 | 162 | 49 |
| 1927 | 64 | 90 |
| 1928 | 36 | 13 |
| 1929 | 61 | 10 |

FRANCE

Broadly 30 % of the immigrants are Italians, over 15 % Belgians, over 14 % Poles, and 12 % Spanish. (Further, in the greatest textile agglomeration in France - Lille, Roubaix, Tourcoing - there are said to be about 50,000 Belgians, a large proportion of whom just cross the frontier either daily or every Monday to Saturday.)

As in the United States, the immigrants have taken up the relatively unskilled work (which the French do not like) such as mining, construction, and agriculture, and the French have moved up in the occupational scale.

Immigration is controlled by requiring each intending immigrant to produce a permit granted by the "Service de la main d'oeuvre étrangère" at the request of his prospective employer. Thus no immigrant enters France in search of work unless he has a definite contract (or enters illegally). During most of our period, immigrants were welcomed and were allowed to remain after their contracts had expired or even if they had been broken. But on the occasions when unemployment is appreciable - notably 1927 and the present time - the following measures are taken:

(a.) Permits for new immigrants are granted only when it is definitely established that the Public Employment Exchanges have no French unemployed capable of performing the work in question.

(b.) The permits of immigrants already established are renewed on similar conditions.

(c.) Frontier control is reinforced. Employers are liable to heavy fines if they employ workers who have not received - or had renewed - official sanction to begin or continue in employment. Such workers either leave the country voluntarily (since no employer dare employ them) or are deported.

In 1927 the result was a net emigration of 26,000 as against a new immigration of well over 106,000 per annum in preceding years. The present period will show, when the figures are available, a similar result.

PART III. WAGE-RATES AND PRODUCTIVITY.

Before the war, the relation between wage-rates and the prices of the products of French labour was such as to provide fairly

FLUCTUATIONS IN UNEMPLOYMENT

full employment. The following Table shows that on the whole a similar relation or even one still more favourable to employment, has prevailed during the post-war period.

| Date | Index Number of | | |
|-----------|-----------------|--------|------------|
| | Nominal Wages | Prices | Production |
| 1914 | 100 | 100 | 100 (1913) |
| Feb. 1921 | 398 | 425 | 58 |
| Oct. 1924 | 462 | 490 | 117 |
| Oct. 1925 | 489 | 538 | 111 |
| Oct. 1926 | 565 | 745 | 129 |
| Oct. 1927 | 575 | 564 | 110 |
| Oct. 1928 | 600 | 624 | 130 |
| Oct. 1929 | 660 | 624 | 144 |

The dates shown are the only post-war dates for which fairly complete data as to wages, resulting from the returns of the Conseils de Prud'hommes, are available. The index numbers are all taken from the Bulletin de la Statistique Générale de la France. Those of wages relate to average daily rates for men in occupations outside Paris. (The actual wages are shown in the Tables; the index given is taken from the article by M. Dunuc mentioned in the Notes.) Those of prices relate to the wholesale prices of the 29 commodities included in the French Wholesale Price Index which are nationally produced. (The general index covers 45 commodities, 16 of which are imported.) The index of Production is explained in the Notes. It relates to perhaps half of French industrial production, but that half includes just those branches in which considerable fluctuations have occurred, so that the direction in which the index moves is significant for our purpose. It is obvious at once that no disparity in the wages/prices relationship, similar to that in post-war Britain, has occurred in France.

The index of production has been shown because productivity is the most important of the variables which, together with wages and prices, exercise a direct effect upon the ability and willingness of entrepreneurs to provide employment.

FRANCE

is complex. In the first place, a considerable amount of unemployment may involve as a consequence a diminution in the total volume of production, or in the volume per head of the population. Less may be produced simply because fewer persons are employed.

In the second place, the substitution of capital for labour due simply to the relatively high cost of labour probably increases unemployment.

In the third place, technological improvement usually increases the amount produced per person employed, but whether it increases or diminishes unemployment depends upon the elasticity of demand for the product, the extent to which similar improvements are introduced by competitors abroad, and a number of other factors. "Technological improvement" here includes all improvements in the methods and organisation of production (whether "internal" or "external" to a single firm). It may or may not involve the installation of new "fixed" capital. It usually results in an increase in the wages/prices ratio, but this may be accompanied by less, as well as by greater, unemployment. Similarly with increased capacity or willingness to work on the part of the employees.

These reflections are of some assistance in considering the index numbers quoted above for those dates which seem to require comment. February, 1921 was a time of comparatively heavy unemployment, and this is reflected in the index of production⁵ (58). Prices were higher relatively to their pre-war level, than wages, but they had been falling for some months and continued to fall until December, 1921, when the index reached 357. Similarly with October, 1927. The amount of unemployment was significant, although not as heavy as in the early months of 1927, the production index was lower than a year previously, and prices fell (from 745 in October, 1926, to 564 in October, 1927) as a result of the "stabilisation crisis". October, 1929 shows a wages/prices ratio higher than before

⁵ The population of France changed comparatively little during this period; hence the index of (total) production may be used, for our purpose, without correcting for changes in population.

FLUCTUATIONS IN UNEMPLOYMENT

the war but with practically no unemployment. The explanation of this is perhaps increasing productivity, the index of production having risen from 130 in October, 1928 to 144 in October, 1929. The beginning of 1931 is not shown in the Table. Unemployment was comparatively heavy, and increasing. (The numbers of "chômeurs secourus" rose from about 13,000 at the end of 1930 to 28,000 at the end of January, 1931 and 45,000 at the beginning of March, 1921). Prices were falling; in September, 1930 the index number was 595 and by the following February it was down to 557. The absence of any appreciable unemployment until towards the end of 1930 might have been deduced from the absence of any marked fall in prices. "Prices" throughout the above paragraphs relate to the prices of the 29 nationally-produced commodities. The prices of the remaining 16 commodities were falling heavily during 1930. Taking July, 1914=100, the indices were:

| | General Index (45) commodities | Index of (29) nation- ally-produced com- modities | Index of (16) Imported commodities. |
|----------------|-----------------------------------|---|---|
| October 1929 | 602 | 624 | 562 |
| September 1930 | 535 | 595 | 428 |

The preceding discussion, however, merely focusses attention upon some of the factors which directly and immediately influence entrepreneurs in deciding how much employment they will give. We must go behind these factors to the forces which produced the world depressions of 1921-22 and 1930 (and after) in order to give a complete explanation of those periods. In the same way, we must go behind the statistics given in the above Table and ask why no disparity in the wages/prices relationship, similar to that in post-war Britain, occurred in France.

This leads us, on the one hand, to questions of monetary policy and, on the other hand, to questions of labour conditions.

It is well known that France pursued a general policy of inflation until the franc was stabilized in terms of gold in 1927. There seems no need to discuss this further, unless perhaps to point out that the export statistics quoted earlier do not support the

FRANCE

view that a depreciating currency gave her a great advantage as an exporter. It is also fairly widely accepted, among economists, that the franc could have been stabilised at a higher value - say 110 or less to the £ sterling. Thus retail prices rose during 1928, remained fairly steady during 1929, and actually rose somewhat during 1930. As we have seen, the wholesale prices of "nationally-produced" goods also rose since 1927 and only began to fall appreciably towards the end of 1930. This was rendered possible by the undervaluation of the franc in 1927 - in striking contrast to the overvaluation of the £ sterling in 1925. The notes in circulation in France and the gold stocks of the Bank of France at various dates are shown below in millions of francs.

| Date | Notes in circulation | Gold stocks |
|-----------------|----------------------|-------------|
| Oct. 28th, 1926 | 54.578 | 5.549 |
| Oct. 27th, 1927 | 54.700 | 5.545 |
| Oct. 26th, 1928 | 61.327 | 30.786 |
| Oct. 31st, 1929 | 68.267 | 39.844 * |
| Dec. 26th, 1930 | 76.436 | 53.578 |

* Oct. 25th.

The part played by monetary policy has clearly been important. But questions of labour conditions have also been important. Why did not wages rise much higher? Why is labour so mobile between industries and occupations? Why is a successful opposition to new methods, such as that recently made by British weavers to the eight-loom system, inconceivable in France?

In reply, one can point to the weakness of Trade Unionism in France (and to the absence of a comprehensive unemployment insurance scheme with fairly substantial benefits). It is true that the C. G. T. claims over a million members; nevertheless, (with the possible exception of railway servants, coal miners, printing operatives, and State manual workers) Trade Unionism as a significant factor in economic life is almost non-existent.

There are several reasons for this. Firstly, there is the very large proportion of industries situated in rural or semi-rural areas.

FLUCTUATIONS IN UNEMPLOYMENT

Secondly, there is the high proportion of foreign labour in many important industries.

Thirdly, there is the relatively undeveloped trade union spirit among female employees, so numerous in the textile trades. There is no general movement on the part of women to obtain the vote in France and, in the same way, they display little interest in trade union questions.

Lastly, French workers often manifest a certain impatience at the restrictions of trade unionism and rather grudge paying trade union subscriptions. Owing to the persistence of the small master and the individuality in technique of many French workers, they tend to be more eager to "paddle their own canoe". They also seem keener on making - and saving - money than the industrial populations of Great Britain. The eight-hour Act is not infrequently evaded with the consent of the workpeople, who can thereby earn more money.

It should perhaps be definitely stated that the writer is expressing no opinion on the merits or drawbacks of either Trade Unionism or inflation. He is merely endeavouring to explain why unemployment was practically unknown in France for seven years after the autumn of 1923 (with the exception of the stabilisation crisis beginning towards the close of 1926).

PART IV. INTERNATIONAL ASPECTS.

France has not been so powerfully affected by world forces as, for example, Great Britain, for reasons already explained. Moreover, her economic system has a certain flexibility, assisted by controlled immigration and absence of Trade Union restrictions, which has made adjustment easier. Nevertheless, her economic system is by no means a "closed" one. She has suffered from the world depression of 1921-22 and she is beginning to suffer now from that of 1930. She is linked by trade, investment, migration, and the gold standard, to other leading countries. She produces and purchases commodities which have a world market and are subject to world influences, coming from both the supply and the demand side. Besides being affected by world conditions, she also affects them. A recent important illustration of this is her accumulation of gold, shown above.

FRANCE

and her unwillingness (possibly justified) to lend abroad. It is widely supposed that conditions in other countries would have been easier during the last year or so if it had been possible for France to act differently.

London. April 1st, 1931.

INDEX OF MAIN TABLES

TABLE I. NUMBER OF UNEMPLOYED PERSONS IN RECEIPT OF RELIEF, DISTINGUISHING THE PARIS FROM OTHER FUNDS 1921-1930. (Monthly Absolute Figures.)

TABLE II. DEMANDS FOR EMPLOYMENT UNSATISFIED AT THE END OF THE MONTH 1921-1930. (Monthly Absolute Figures.)

TABLE III. GENERAL INDEX OF INDUSTRIAL PRODUCTION 1910-1930. (Monthly indices for the post war period; Annual indices for the pré-war period.)

TABLE IV. WAGES AND THE COST OF LIVING IN FRANCE 1911-1929. (Absolute figures and indices of wages (men and women); the monthly price of food and lodging and the index of the retail prices of 13 commodities. One month in each year.)

TABLE I. UNEMPLOYMENT IN FRANCE, 1921-1930

| Number of Unemployed Persons in Receipt of Relief, distinguishing the Paris from Other Funds | | | |
|--|--------------------|--------------------|---------------------|
| (From the Bulletin du Ministère du Travail et de la Prévoyance Sociale) | | | |
| Year and Month: | Total ¹ | Paris Fund | Other Funds |
| 1921 | | | |
| January | 63,962 | 34,758 | 29,204 ² |
| February | 89,031 | 44,525 | 44,506 |
| March | 91,225 | 43,037 | 48,188 |
| April | 84,896 | 37,758 | 47,138 |
| May | 70,383 | 22,677 | 47,706 |
| June | 47,331 | 13,860 | 33,471 |
| July | 33,731 | 10,616 | 23,115 |
| August | 28,665 | 9,706 | 18,959 |
| September | 21,797 | 7,486 | 14,311 |
| October | 14,322 | 4,299 | 10,023 |
| November | 10,346 | 3,730 | 6,616 |
| December | 10,032 | 4,099 ³ | 5,933 |
| 1922 | | | |
| January | 9,709 (9,772) | 4,658 | 5,114 |
| February | 9,384 (9,505) | 4,385 | 5,120 |
| March | 8,265 (8,464) | 3,546 | 4,918 |
| April | 6,616 (6,631) | 2,447 | 4,184 |
| May | 5,237 (4,926) | 1,319 | 3,607 |
| June | 3,970 (3,758) | 764 | 2,994 |
| July | 4,051 (4,103) | 602 | 3,501 |
| August | 3,309 (3,342) | 606 | 2,736 |
| September | 2,440 (2,384) | 410 | 1,974 |
| October | 1,414 (1,417) | 272 | 1,145 |
| November | 2,171 (2,161) | 285 | 1,876 |
| December | 2,517 (2,274) | 414 | 1,860 |
| 1923 | | | |
| January | 2,416 | 684 | 1,732 |
| February | 2,232 | 666 | 1,566 |
| March | 1,923 | 588 | 1,335 |
| April | 1,355 | 354 | 1,001 |
| May | 1,104 | 199 | 905 |
| June | 1,018 | 166 | 852 |
| July | 1,633 | 171 | 1,462 |
| August | 1,580 | 146 | 1,434 |
| September | 537 | 66 | 471 |
| October | 492 | 52 | 440 |
| November | 499 | 89 | 410 |
| December | 657 | 238 | 419 |

¹ The figures in brackets in the Total column represent the totals of those for the Paris Fund and other Funds respectively which appear on pages 276—7 of the Bulletin du Ministère du Travail, Oct.—Nov.—Dec. 1923.

For 1921—22 the unbracketed figures are those which appear on page 86 of the Bulletin du Ministère du Travail, Janv.—Fév.—Mars, 1923. Here the Paris and Other Funds are not differentiated.

For 1923 and subsequent years the figures in the Total column are the totals of those for the Paris Fund and Other Funds and are, therefore, a continuation of the bracketed figures for the previous year, 1922.

² The figures for Other Funds for 1921 have been computed by subtracting those for the Paris Fund from those for all funds, departmental and local.

³ Figure for Mid-January.

TABLE I Cont'd

| Year and Month : | Total | Paris Fund | Other Funds |
|------------------|--------|------------|-------------|
| 1924 | | | |
| January | 3.043 | 596 | 2.447 |
| February | 1.472 | 742 | 730 |
| March | 1.253 | 563 | 690 |
| April | 973 | 312 | 661 |
| May | 311 | 230 | 81 |
| June | 698 | 157 | 541 |
| July | 450 | 131 | 319 |
| August | 332 | 106 | 226 |
| September | 447 | 59 | 388 |
| October | 404 | 59 | 345 |
| November | 419 | 90 | 329 |
| December | 518 | 147 | 371 |
| 1925 | | | |
| January | 705 | 274 | 431 |
| February | 1.037 | 469 | 568 |
| March | 1.031 | 447 | 584 |
| April | 864 | 370 | 494 |
| May | 600 | 243 | 357 |
| June | 626 | 171 | 455 |
| July | 638 | 108 | 530 |
| August | 600 | 103 | 497 |
| September | 596 | 75 | 521 |
| October | 574 | 78 | 496 |
| November | 583 | 103 | 480 |
| December | 645 | 155 | 490 |
| 1926 | | | |
| January | 547 | 203 | 344 |
| February | 713 | 263 | 450 |
| March | 543 | 175 | 368 |
| April | 442 | 117 | 325 |
| May | 386 | 81 | 305 |
| June | 384 | 81 | 303 |
| July | 342 | 37 | 305 |
| August | 369 | 52 | 317 |
| September | 336 | 49 | 287 |
| October | 429 | 59 | 370 |
| November | 571 | 138 | 433 |
| December | 17.178 | 14.577 | 2.601 |
| 1927 | | | |
| January | 56.275 | 43.115 | 13.160 |
| February | 80.941 | 62.412 | 18.529 |
| March | 70.456 | 48.182 | 22.274 |
| April | 58.462 | 39.684 | 18.778 |
| May | 39.555 | 24.871 | 14.684 |
| June | 21.934 | 13.093 | 8.841 |
| July | 16.994 | 9.623 | 7.371 |
| August | 14.825 | 9.274 | 5.551 |
| September | 11.272 | 7.494 | 3.778 |
| October | 8.642 | 5.963 | 2.679 |
| November | 10.687 | 8.002 | 2.685 |
| December | 13.221 | 9.843 | 3.378 |

TABLE I Cont'd

| Year and Month : | Total | Paris Fund | Other Funds |
|---|--------|------------|-------------|
| 1928 | | | |
| January | 17.840 | 13.676 | 4.164 |
| February | 14.408 | 11.105 | 3.303 |
| March | 10.473 | 8.378 | 2.095 |
| April | 7.271 | 5.638 | 1.633 |
| May | 3.222 | 2.334 | 888 |
| June | 1.659 | 1,334 | 325 |
| July | 1.095 | 826 | 269 |
| August | 906 | 632 | 274 |
| September | 563 | 372 | 191 |
| October | 453 | 272 | 181 |
| November | 586 | 358 | 228 |
| December | 895 | 547 | 348 |
| 1929 | | | |
| January | 1.946 | 1.111 | 835 |
| February | 3.468 | 1.686 | 1.782 |
| March | 1.078 | 758 | 320 |
| April | 706 | 427 | 279 |
| May | 558 | 304 | 354 |
| June | 394 | 235 | 159 |
| July | 411 | 245 | 166 |
| August | 503 | 263 | 240 |
| September | 385 | 184 | 201 |
| October | 398 | 233 | 165 |
| November | 577 | 378 | 199 |
| December | 817 | 628 | 189 |
| 1930 | | | |
| January | 1.424 | 1.144 | 280 |
| February | 1.651 | 1.189 | 462 |
| March | 1.630 | 1.239 | 391 |
| April | 1.113 | 932 | 181 |
| May | 859 | 667 | 192 |
| June | 1.019 | 614 | 405 |
| July | 856 | 602 | 254 |
| August | 964 | 824 | 140 |
| September | 988 | 862 | 126 |
| October | 1.663 | 1.513 | 150 |
| November | 4.893 | 4.340 | 553 |
| December | 13.149 | 11.117 | 2.032 |
| <p>Note: The figures for the years 1921—22 (with the exception of the bracketed figures) refer to the course of the month, apart from the figures for the Paris Fund. The figures for subsequent years refer to the end of the month.</p> | | | |

TABLE III. GENERAL INDEX OF INDUSTRIAL PRODUCTION

| (Base, 1913 = 100) | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Jan. | 57 | 65 | 62 | 66 | 88 | 102 | 110 | 118 | 114 | 116 | 137 | 144 |
| Febr. | 57 | 64 | 58 | 69 | 83 | 104 | 110 | 122 | 107 | 119 | 136 | 143 |
| Mar. | 57 | 64 | 55 | 75 | 83 | 104 | 108 | 123 | 107 | 123 | 138 | 144 |
| Apr. | 59 | 63 | 52 | 75 | 82 | 102 | 107 | 125 | 103 | 123 | 139 | 144 |
| May | 60 | 60 | 50 | 78 | 82 | 104 | 106 | 126 | 104 | 125 | 139 | 144 |
| June | 62 | 63 | 50 | 79 | 87 | 103 | 105 | 126 | 105 | 128 | 141 | 144 |
| July | 64 | 62 | 49 | 81 | 88 | 107 | 105 | 127 | 105 | 129 | 139 | 141 |
| Aug. | 62 | 64 | 49 | 82 | 91 | 110 | 106 | 128 | 106 | 130 | 139 | 139 |
| Sep. | 60 | 65 | 48 | 84 | 92 | 114 | 107 | 128 | 107 | 129 | 138 | 137 |
| Oct. | 61 | 68 | 50 | 87 | 95 | 117 | 111 | 129 | 110 | 131 | 141 | 136 |
| Nov. | 61 | 68 | 55 | 89 | 97 | 113 | 116 | 123 | 112 | 132 | 143 | 135 |
| Dec. | 62 | 67 | 62 | 88 | 98 | 113 | 118 | 123 | 115 | 134 | 144 | 134 |
| Avr. for Year | 57 | 62 | 55 | 78 | 88 | 103 | 107 | 124 | 109 | 127 | 139 | 140 |
| | 1910 | 1911 | 1912 | 1913 | | | | | | | | |
| Avr. for Year | 89 | 92 | 100 | 100 | | | | | | | | |
| NOTE: The averages for the year for the post-war period are the revised averages ascertained with alterations or reconstructions of the component indices. Revised monthly indices, apart from annual indices, have not been published, however. Hence the apparent discrepancies. | | | | | | | | | | | | |
| From the Bulletin de la S. G. F. | | | | | | | | | | | | |

TABLE II. UNEMPLOYMENT IN FRANCE, 1921-1930

| Demands for Employment unsatisfied at the end of the month | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|---------------------|
| | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Jan. | 39.496 | 18.438 | 13.254 | 12.089 | 13.030 | 12.863 | 73.506 | 32.899 | 12.066 | 13.159 |
| Feb. | 43.839 | 17.980 | 11.940 | 11.278 | 12.807 | 11.368 | 96.670 | 27.135 | 13.194 | 13.086 |
| Mar. | 43.952 | 16.244 | 9.398 | 10.129 | 13.838 | 10.213 | 80.741 | 22.361 | 8.826 | 12.806 |
| Apr. | 35.241 | 13.558 | 9.668 | 10.412 | 11.666 | 10.369 | 68.614 | 18.420 | 9.714 ¹ | 12.440 |
| May | 26.385 | 10.025 | 8.038 | 8.038 | 10.947 | 8.882 | 48.241 | 12.336 | 9.055 | 10.734 |
| June | 24.118 | 11.484 | 8.739 | 9.154 | 10.321 | 8.272 | 32.622 | 9.347 | 8.333 | 9.813 |
| July | 19.995 | 11.420 | 8.992 | 8.653 | 10.548 | 7.682 | 29.264 | 8.025 | 8.092 | 9.555 |
| Aug. | 20.238 | 10.984 | 9.943 | 9.358 | 9.196 | 8.597 | 29.576 | 9.760 | 8.311 | 11.214 ² |
| Sep. | 17.478 | 10.235 | 9.452 | 9.536 | 10.104 | 11.753 | 27.673 | 10.150 | 9.599 | 11.949 ³ |
| Oct. | 14.952 | 11.430 | 11.223 | 10.505 | 11.208 | 11.759 | 24.823 | 11.112 | 10.129 | 15.629 ³ |
| Nov. | 19.437 | 11.892 | 10.828 | 11.886 | 11.923 | 16.126 | 28.593 | 11.535 | 21.917 | 20.090 ³ |
| Dec. | 15.892 | 9.297 | 8.157 | 9.901 | 9.276 | 23.985 | 27.439 | 8.593 | 9.811 | 22.879 ³ |

¹ This figure appears on page 167 of the Bulletin du Ministère du Travail for April-Mai-Juin 1929. In the Bulletin for Janv.-Fevr.-Mars 1930, p. 78 there is a blank in the place of the hundreds, the other figures reading as 9-67. Though the error is insubstantial, the earlier figure has been chosen.

² From the International Labour Review, Jan., 1931.

³ From the Bulletin du Marché du Travail, 3 Janvier, 1931.

1921-1922 From the Revue d'Economie Politique 1927 „Étude Critique de Statistiques du Chômage en France" par Henri Fuss, p. 44.

1923-July 1930 From the Bulletin du Ministère du Travail.

TABLE IV. WAGES AND THE COST OF LIVING IN FRANCE, 1911-1929

| Year | Daily Wages | | | | Monthly Price of Pension (Food and Lodging) | | Index of the Retail Prices of 13 Articles | |
|------|-------------|------------------|-------|------------------|--|-----|---|-----|
| | Men | | Women | | A | B | A | B |
| | A | B | A | B | | | | |
| 1911 | 4.61 | 100 | 2.29 | 100 | 70 | 100 | 1.014 | 100 |
| 1916 | 5.56 | 122 ¹ | 2.57 | 116 ² | 99 | 141 | 1.466 | 145 |
| 1921 | 18.92 | 410 | 9.44 | 412 | 285 | 407 | 4.303 | 424 |
| 1924 | 22.00 | 477 | 11.36 | 496 | 338 | 483 | 4.280 | 422 |
| 1925 | 23.25 | 504 | 12.25 | 535 | 360 | 514 | 4.713 | 465 |
| 1926 | 26.93 | 584 | 15.29 | 668 | 420 | 600 | 6.472 | 638 |
| 1927 | 27.34 | 593 | 14.84 | 648 | 440 | 628 | 5.261 | 519 |
| 1928 | 28.57 | 619 | 16.06 | 701 | 455 | 650 | 5.620 | 554 |
| 1929 | 31.34 | 679 | 18.30 | 799 | 520 | 744 | 5.931 | 584 |

¹ Index calculated by taking as base the mean 4.55 for 1911 (inclusive of towns other than those of the invaded areas).

² Vide ¹. Here the mean for 1911 was 2.21.

(October in each year excepting 1911 and 1921, for which years February is the month to which the figures apply).

From the summary table in the Bulletin de la Statistique Générale de la France for January of each year: „Enquete sur les salaires en France”.

A Actual values in francs and centimes.

B Indices with 1911 as base.

**SYNOPSIS D'UN RAPPORT SUR LES FLUCTUATIONS
DU CHOMAGE EN FRANCE, PAR M. LE DR. F. C. BENHAM,
ÉCOLE D'ÉCONOMIE POLITIQUE ET DE SCIENCES POLITIQUES DE
LONDRES.**

PREMIÈRE PARTIE: HISTORIQUE DU CHOMAGE.

Il est essentiel de se rendre compte tout d'abord, qu'en France les statistiques ne fournissent pas de renseignements complets sur le chômage.

Les trois recensements de 1911, 1921, et 1926, faits au cours de la période 1910-1930, accusent respectivement en chiffres absolus, 209.000, 537.000 et 243.000 chômeurs.

Au cours de la période 1921-1930, le nombre de "chômeurs secourus" n'a jamais atteint 100.000 à la fin d'un mois quelconque et depuis septembre 1923, il est fréquemment tombé au-dessus de 1000. Le nombre de "demandes d'emploi non satisfaites" n'a également jamais atteint 100.000 et s'est d'ordinaire tenu au-dessous de 20.000. Ces données ne peuvent servir toutefois qu'à indiquer, grosso modo, si le chômage prend des proportions importantes.

Les indications existantes aboutissent toutes à la même conclusion, à savoir que la France a été relativement exempte de chômage, pendant la plus grande partie de la période consécutive à la guerre. Le contraste est donc frappant avec la situation que la Grande-Bretagne et l'Allemagne ont éprouvée, à cet égard, après la guerre.

Nous distinguons après la guerre les périodes suivantes:

(1) La période 1919-1923, succédant immédiatement à la guerre, a débuté avec un chômage appréciable dû aux difficultés de la démobilisation. L'emballement économique de 1920 et la dépression de 1921-22 n'ont pas été aussi marqués que dans certains autres pays, en particulier la Grande-Bretagne.

(2) La période s'étendant de 1923 presque jusqu'à la fin de 1930, au cours de laquelle le chômage a été pour ainsi dire inexistant, sauf en 1927, année où le change français fut stabilisé au pair de l'or.

FRANCE

(3) A la fin de 1930, la France a commencé cependant à éprouver les effets de la crise de dépression universelle.

DEUXIÈME PARTIE: CONDITIONS SPÉCIALES A LA FRANCE.

La France a considérablement développé son industrie houillère et ses industries de fer et de l'acier. Elle a pris un caractère plus industriel, en grande partie par suite de la réannexion de l'Alsace et de la Lorraine. Cependant, elle continue à être surtout un pays agricole, et produit principalement en vue des besoins de son marché intérieur qui est protégé, et dont le niveau d'absorption est régulier. Elle demeure encore essentiellement le pays du petit propriétaire et de la petite entreprise; le syndicalisme ouvrier est faible et n'oppose que des entraves presque inexistantes à l'adoption de nouvelles méthodes de travail et à la mobilité de la main d'oeuvre. Le pays est par conséquent moins vulnérable au chômage que la Grande-Bretagne ou l'Allemagne.

Nous examinerons ici les facteurs suivants de la situation:

- (1) La fraction comparativement restreinte de la population qui est accessible au chômage.
- (2) Le chiffre stationnaire de la population.
- (3) La demande de travail.
- (4) Le commerce extérieur.
- (5) La surveillance de l'immigration.

(1) Cette fraction est beaucoup moins considérable qu'en Grande-Bretagne.

(2) Le chômage peut se manifester tout aussi bien dans une population dont le chiffre est stationnaire, que dans une population en voie d'accroissement ou de diminution.

(3) La demande de travail en France après la guerre a été considérable, par suite des dépenses faites par l'Etat dans les régions dévastées, etc. En outre 1,4 millions d'hommes ont

FRANCE

été tués à la guerre. Mais ces facteurs ne suffisent pas à eux seuls pour expliquer l'absence comparative de chômage.

(4) La masse des exportations françaises se dirige sur les Etats-Unis, les pays européens voisins de la France, et les colonies Françaises. Le pays a donc éprouvé une immunité relative quant aux répercussions causées par l'industrialisation des pays d'Orient et de l'Australie, et quant à la diminution récente de la capacité d'achat survenue dans les pays qui dépendent surtout de leur exportation de denrées alimentaires et de matières premiers.

(5) Au cours de la période qui a suivi la guerre, la France a surveillé le flux de la main d'oeuvre immigrante, de manière à s'en servir comme d'un balancier pour régler le marché du travail. Elle a pu de cette façon atténuer la charge du chômage en temps de crise, particulièrement en 1927 et en 1931.

TROISIÈME PARTIE : TAUX DE SALAIRES ET PRODUCTIVITÉ.

Avant la guerre, le rapport existant en France entre le taux des salaires et le prix des produits du travail était assez satisfaisant pour assurer une stabilité d'emploi à peu près complète. Un rapport semblable ou même encore peut-être plus favorable à la stabilité d'emploi a existé au cours de la période consécutive à la guerre. Dans ce rapport salaires, il ne s'est donc manifesté aucune disparité, comparable à celle qui est survenue en Grande-Bretagne après la guerre.

L'on attribue à la politique monétaire suivie et la situation existant en matière de main d'oeuvre, l'absence de toute disparité de ce genre.

Les statistiques ne semblent pas appuyer l'opinion qu'une monnaie dépréciée ait grandement avantagé la France dans le domaine de l'exportation.

La dévaluation du franc en 1927, - qui contraste de manière frappante avec la surévaluation de la livre sterling en 1925 - a permis, entre 1927 et 1930, à la fois l'ascension des prix de

FRANCE

détail et celle des prix de gros.

Au cours de la période 1926-1930, le montant des billets en circulation et les réserves d'or de la banque de France ont considérablement augmenté.

Le rôle joué par la politique monétaire a donc été important en empêchant l'apparition d'un chômage à proportions aussi étendues qu'en Grande-Bretagne.

D'autres facteurs importants de la situation ont été la faiblesse relative du syndicalisme ouvrier, l'absence d'un régime général d'assurances contre le chômage garantissant aux bénéficiaires des avantages suffisamment importants et la flexibilité plus grande du régime économique français aidée par la surveillance de l'immigration.

QUATRIÈME PARTIE: PERSPECTIVES INTERNATIONALES.

La France n'a pas éprouvé aussi fortement que la Grande-Bretagne l'effet des forces universelles. Cependant son système économique n'est pas un système clos, et comme la Grande-Bretagne, elle est reliée par une multitude de facteurs à d'autres pays importants.

SYNOPSIS DES BERICHTES ÜBER SCHWANKUNGEN
IN DER ARBEITSLOSIGKEIT IN FRANKREICH.
DURCH Dr. F. C. BENHAM, LONDON SCHOOL OF ECONOMICS AND
POLITICAL SCIENCE.

TEIL I. DER LAUF DER ARBEITSLOSIGKEIT.

Es ist wesentlich, die Beschränkungen französischer Statistiken über Arbeitslosigkeit zu verstehen.

Die absoluten Zahlen der Arbeitslosen, wie sie in der Periode von 1910-1930 durch die drei Volkszählungen von 1911, 1921 und 1926 bekannt geworden sind, waren: 209.000, 537.000, 243.000.

Während der Periode 1921-1930 hat die Zahl der "chômeurs secourus" am Monatsende niemals 100.000 erreicht, und seit September 1923 ist sie häufig unter 1.000 gewesen. Die Zahl der "demandes d'emploi non satisfaites" hat auch niemals 100.000 erreicht und ist gewöhnlich unter 20.000 gewesen. Diese Zahlen dienen indessen nur dazu, um grob anzuzeigen, wenn Arbeitslosigkeit ein bedeutendes Ausmass annahm.

Solche Angaben, soweit sie vorhanden sind, führen zu dem Schluss, dass Frankreich verhältnismässig frei von Arbeitslosigkeit über den grössten Teil der Nachkriegsperiode gewesen ist. Der Gegensatz zu den Nachkriegserfahrungen von Grossbritannien und Deutschland ist deshalb auffallend.

Die unterschiedenen Nachkriegsperioden sind:

(1) Die unmittelbare Nachkriegsperiode 1919-1923, welche mit einem bemerkenswerten Betrag von Arbeitslosigkeit begann, der durch die Schwierigkeiten der Demobilisierung verursacht war. Die Konjunktur von 1920 und die Depression 1921-1922 zeichneten sich nicht so ab wie in einigen andern Ländern, besonders in Grossbritannien.

(2) Die Periode von 1923 bis nahe an das Ende von 1930, während derer Arbeitslosigkeit mit Ausnahme des Jahres 1927, als der Frankenkurs im Verhältnis zum Gold stabilisiert wurde, praktisch unbekannt war.

FRANKREICH

(3) Das Ende von 1930, als Frankreich endlich begann, die Wirkungen der Weltkrise zu erfahren.

TEIL II. DIE BESONDEREN UMSTAENDE FRANKREICHS.

Frankreich hat seinen Bergbau, seine Eisen- und Stahlindustrien zu grosser Entwicklung gebracht. Das Land hat sich besonders dank der Wiedergewinnung von Elsass-Lothringen stärker industrialisiert. Aber Frankreich bleibt vorherrschend Agrarland und produziert wesentlich für einen stetigen und geschützten Inlandsmarkt. Es ist noch wesentlich ein Land des kleinen Eigentümers und des kleinen Geschäftes. Die Gewerkschaftsbewegung ist schwach, und Beschränkungen für die Einführung neuer Methoden und neuer Beweglichkeit bestehen im allgemeinen nicht. Es ist deshalb weniger verwundbar gegen Arbeitslosigkeit als Grossbritannien oder Deutschland.

Betrachtet sind:

- (1) Der verhältnismässig geringe Teil der Bevölkerung, welcher der Arbeitslosigkeit ausgesetzt ist.
- (2) Die stationäre Bevölkerung.
- (3) Die Nachfrage nach Arbeit.
- (4) Aussenhandel.
- (5) Einwanderungskontrolle.

(1) Dieser Teil ist viel geringer als in Grossbritannien.

(2) Arbeitslosigkeit ist ebenso wahrscheinlich in einer stationären als in einer zunehmenden oder abnehmenden Bevölkerung.

(3) Die Nachfrage nach Arbeit im Nachkriegs-Frankreich war wesentlich durch die Regierungsausgaben in zerstörten Gebieten u.s.w. verursacht. Ausserdem sind 1.4 Millionen Männer im Kriege getötet. Aber dies allein erklärt nicht die verhältnismässige Abwesenheit von Arbeitslosigkeit.

(4) Die Hauptmasse der Ausfuhr Frankreichs geht zu den Ver-

FRANKREICH

einigten Staaten, seinen europäischen Nachbarn und seinen Kolonien.

Frankreich war deshalb verhältnismässig immun gegen die Reaktionen, welche von der Industrialisierung der Länder des Ostens und Australiens ausgehen und ebenso gegen die jüngste Reduktion in der Kaufkraft derjenigen Länder, welche sich besonders auf ihren Export von Nahrungsmitteln und Rohstoffen stützen.

(5) Während der Nachkriegsperiode hat Frankreich den Strom einwandernder Arbeitskräfte in solcher Weise kontrolliert, dass es aus ihm einen ausgleichenden Faktor machte. In dieser Weise ist die Last der Arbeitslosigkeit in den Krisenzeiten, besonders 1927 und 1931, gemildert worden.

TEIL. III. LOHNSÄTZE UND PRODUKTIVITÄT.

Vor dem Kriege war das Verhältnis zwischen Lohnsätzen und den Preisen der Erzeugnisse französischer Arbeit so, dass es für ziemlich volle Beschäftigung sorgte. Ein ähnliches Verhältnis oder sogar ein noch günstigeres für die Beschäftigung herrschte in der Nachkriegsperiode vor.

Es trat in Frankreich keine Verschiebung in dem Löhne/Preise Verhältnis ein, ähnlich derjenigen im Nachkriegs-England.

Das Fehlen einer solchen Disparität wird der Geldpolitik und den Arbeitsbedingungen zugeschrieben.

Statistiken scheinen nicht die Ansicht zu unterstützen, dass eine sinkende Währung einen grossen Vorteil als Exportland gab.

Die Unterbewertung des Franken in 1927 - in auffallendem Gegensatz zu der Ueberbewertung des Pfund Sterling in 1925 - ermöglichte sowohl für Kleinhandels-, wie Grosshandelspreise eine Steigerung von 1927 bis 1930.

In der Periode 1926-1930 vermehrte sich sowohl der Notenumlauf, wie die Goldvorräte der Bank von Frankreich in bemerkenswerter Weise.

Die Rolle, welche die Geldpolitik spielte, war deshalb sehr

FRANKREICH

wichtig, weil sie verhinderte, dass die Arbeitslosigkeit zu einer Höhe stieg, wie sie Grossbritannien erfuhr.

Andere wesentliche Faktoren waren: die verhältnismässige Schwäche der Gewerkschaftsbewegung, der Mangel einer Versicherung mit ins Gewicht fallenden Unterstützungssätzen und die grössere Wendigkeit eines durch Einwanderungskontrolle unterstützten Systems.

TEIL IV. INTERNATIONALE AUSBLICKE.

Frankreich erfuhr nicht so stark die Einflüsse der Weltwirtschaft wie Grossbritannien. Aber sein Wirtschaftssystem ist kein "geschlossenes", und ist wie das englische durch zahlreich Faktoren mit andern führenden Ländern verbunden.

FLUCTUATIONS IN UNEMPLOYMENT IN
GREAT BRITAIN BY DR. F. C. BENHAM, LONDON SCHOOL
OF ECONOMICS AND POLITICAL SCIENCE.

| | Page |
|---|------|
| SYNOPSIS | 230 |
| PART I. THE COURSE OF UNEMPLOYMENT | 234 |
| PART II. THE DISTRIBUTION OF UNEMPLOYMENT | 238 |
| PART III. THE CAUSES OF UNEMPLOYMENT | 243 |
| PART IV. THE PARADOX OF UNEMPLOYMENT IN THE MIDST OF ECONOMIC PROGRESS | 256 |
| INDEX OF MAIN TABLES | 258 |
| ADDENDUM | |
| SYNOPSIS (texte français) | 269 |
| . (deutscher Text) | 274 |

SYNOPSIS

PART. I. THE COURSE OF UNEMPLOYMENT.

The years 1910-1930 may be divided into five periods:

- (1) The pre-war period 1910-1914.
- (2) The war period 1914-1918.
- (3) The immediate post-war period 1919-1924.
- (4) The period 1925-1929.
- (5) The year 1930.

(1) Unemployment was diminishing from 1910 to 1913 whilst prosperity increased. Wholesale prices rose and production extended. British exports were expanding.

(2) The war period was exceptional. Unemployment dwindled to negligible proportions and prices soared.

(3) At the end of 1919 deflation was commenced and in the summer of 1920 prices began to fall. In 1921 there was severe depression and intense unemployment. A disharmony occurred between costs and prices which was not apparent before the war. Employment revived in the summer of 1922 and this revival continued until the end of 1924.

(4) The period 1925-1929 revealed the marked disparity between the pre-war and post-war levels of unemployment. From 1921 to 1930 the annual insured percentage unemployed has averaged over 12 %. It has never fallen below 8.7 (May 1927) in any single month. In absolute figures this means that the number of unemployed has never fallen below 1,000,000, whilst it has risen to more than 2½ million (end of 1930).

(5) 1930 was a year of severe slump, world wide in character. Yet Great Britain has not suffered so much as some other countries, such as Germany and Australia, relatively to preceding years. Wholesale prices fell, production decreased, and unemployment grew.

SYNOPSIS

PART. II. THE DISTRIBUTION OF UNEMPLOYMENT.

- (1) Among industries.
- (2) Among areas.
- (3) Among persons according to sex and age.
- (4) Among persons according to the duration of unemployment.

(1) The "heavy industries", dependent largely on exports, have been responsible for a major part of the unemployment. They have been contracting; yet insufficiently to equalize unemployment among industries. The newer expanding industries have been unable to reduce the percentage of unemployment, although absorbing the increased supply of labour.

(2) Unemployment is mainly concentrated in the North of England, South Wales and Scotland. The South and the Midlands have suffered least.

(3) Statistically, unemployment in Great Britain is a problem relating mainly to men.

(4) Though the allegations of widespread abuse of the Unemployment Insurance Fund are groundless, there is a "solid core" of unemployment composed mainly of the older men attached to contracting industries in depressed areas and partially of men lacking in normal eligibility for employment.

PART. III. THE CAUSES OF UNEMPLOYMENT.

The "normal" pre-war forces, e.g. lack of knowledge and incomplete mobility, preventing exact correspondence between the supply of and the demand for labour, still exist, together with seasonal fluctuations and "unemployability". They account for about 5 % of unemployment in 1930. Reckoning the 1930 slump to account for some 5 %, between 6-7 % may be attributed to conditions peculiar to post-war years.

SYNOPSIS

Consideration is made of:

- (1) "Unemployability".
- (2) Seasonal Fluctuations.
- (3) Lack of knowledge. Imperfect Mobility.
Disorganised Methods of engaging labour.
- (4) Cyclical movements.
- (5) Rationalisation.
- (6) Special Post-War Difficulties.
- (7) Rigidity of Wages and other Working Con-
ditions.

(1) The number of "unemployable" persons before and since the war is declared to be negligible.

(2) Complete dove-tailing of employment has not been attained.

(3) Imperfect mobility and disorganised methods of engagement have created some unemployment throughout the period 1910-1930.

(4) The two serious slumps of 1921-22 and 1930 are distinguished. The former was the expected consequence of the preceding boom period of inflation and due in part to the necessity of adapting the economic structure, distorted by the war, to changed peace time conditions. The latter followed a period of slowly falling prices and came after a decade of reconstruction and of partial adaptation to post-war conditions.

(5) There has been little evidence of rationalisation, in the sense of the substitution of capital for labour, in Great Britain. Production increased faster than population between 1924 and 1929; but this is explicable by improvements in methods and organisation rather than by an increase in the proportion of fixed capital used.

(6) The return to the Gold Standard in 1925 was unfortunate in its results. Employment fell since wages remained

SYNOPSIS

"sticky", while sterling prices of British exports decreased. Moreover, the nature of her export trade has rendered Great Britain especially vulnerable to the movement towards self-sufficiency among some of her customers and to the effects of the recent drastic fall in the prices of raw materials and foodstuffs.

(7) The substantially higher level of post-war unemployment in contrast with pre-war unemployment and with unemployment in other countries is attributed to the comparative rigidity of wage-rates. This rigid wage structure has prevailed throughout the post-war period.

There was close correspondence before the war between unemployment and the "quotient" of wages divided by wholesale prices. Both were falling slightly. In the post-war period this correspondence has continued. Unemployment together with the "quotient" of wages divided by wholesale prices has been markedly above the pre-war level.

The greater rigidity of wage-rates since the war has been due proximately to Trade Union policy. This policy has been fortified by the National Unemployment Insurance Scheme.

FLUCTUATIONS IN UNEMPLOYMENT IN GREAT BRITAIN.¹

PART I. THE COURSE OF UNEMPLOYMENT.

The years 1910 to 1930 can be divided, for our present purpose, into five periods:

- (1) The pre-war period 1910-1914.
- (2) The war period 1914-1918.
- (3) The immediate post-war period 1919-1924.
- (4) The period 1925-1929.
- (5) The year 1930.

During the years 1910 to 1913 unemployment was diminishing and other indices - notably the index of production - show that prosperity was increasing. The yearly mean of unemployment among the Trade Unionists covered by the returns was 4.7 % in 1910, 3 % in 1911, 3.2 % in 1912 and 2.1 % in 1913. The figure for 1912 is affected by the coal stoppage in March, which made the percentage of unemployed in that month 11.3. Apart from this one month, a fairly steady diminution of unemployment occurred throughout these four years. 1913, indeed, may be termed a "boom" year. There are some indications that, but for the war, a period of recession or depression might have commenced in the latter part of 1914. The percentage of unemployment in August, September, and October, 1914, was unusually high for these months - 7.1, 5.9, and 4.4 per cent - but this was doubtless partly due to the outbreak of war.

The workers covered by the Trade Union returns were not a representative sample of the whole employed population. They consisted mainly of comparatively skilled workers, whilst too much weight was given to some industries (notably engineering and construction) and too little to others (such as mining and textiles). Nevertheless, there can be no doubt of the fact that unemployment throughout the working population was comparatively low during these pre-war years - far lower than it has been since the war. The conditions were favourable to employment. Production was increasing and wholesale prices

¹ I should like to thank Mr. S. Brand for his aid in compiling the Statistics and the Notes.

GREAT BRITAIN

were rising. Employment Exchanges were fulfilling their function of "placing" workers without being overburdened by the administration of unemployment insurance. On the whole, the rest of the world was increasing in prosperity, and British exports were expanding. Then came the war.

(2) The war period, of course, does not fit into any scheme. The mean percentage of unemployment recorded for 1915, 1916, 1917 and 1918 was 1.1, 0.4, 0.7 and 0.8. This seems to indicate that a certain amount of unemployment is inevitable - owing to the difficulty of rapidly adjusting both the supply of workers, between industries and occupations, and wage-rates in response to changes in demand - but that this amount is relatively small, being practically negligible when compared with the number of unemployed in recent years. We cannot conclude, however, that what was possible in war-time is possible in peace-time. During the war there was inflation and rising prices; there was a great non-monetary incentive to employ workers and, on the part of workers, to accept employment; there was an enormous demand for war supplies (to be largely, in effect, destroyed) by the Government. Trade Union and other restrictions were waived for the time being; and the withdrawal of men and women for carrying on the war meant a shortage of labour for satisfying the wants of the home population. Under peace-time conditions a reproduction of these circumstances may be ruled out of consideration.

(3) The low percentage of unemployment in 1919 and 1920 (2.4 in each case) is partly a tribute to the manner in which demobilisation was conducted, but it is mainly due to the post-war boom. There was a general feeling that good times had returned and that the demand for goods and services of all kinds - both from abroad and from home consumers - would be great. During the war much capital equipment not needed for war purposes - notably houses - had not been maintained or replaced. It was thought that European and other countries would require British goods, such as machinery, to re-equip themselves. Wholesale prices rose very rapidly until the summer of 1920. But Mr. Chamberlain's celebrated Treasury Minute of December 15th,

FLUCTUATIONS IN UNEMPLOYMENT

1919, inaugurated a period of deflation. It became clear that the war had impoverished the overseas customers of Great Britain and - although this was not realised until later - that British costs of production were in many cases too high to enable her exports to compete with non-British goods as effectively as before the war. Prices continued to fall from the summer of 1920 to the end of 1921 and 1921 was a year of very severe depression and of heavy unemployment, intensified somewhat by a coal dispute from April to August. About the summer of 1922 employment began slowly to revive and this revival continued until the end of 1924. The yearly mean percentage of unemployment for 1924 was 8.1. This is high compared with the pre-war years, but is low compared with the three preceding years (14.8, 15.2, and 11.3 per cent). Regarded in retrospect, 1924 can be considered a "good" year.

(4) For the years 1924 to 1929 the unemployment percentage was 8.1, 10.5, 12.2, 9.7, 10.9, and 10.4. As explained in the notes, the percentages up to 1926 are Trade Union percentages. From 1927 onwards they are Ministry of Labour (National Unemployment Insurance) percentages. Moreover, there was a general coal-mining stoppage from May to November, 1926. But these cautions fade into insignificance in face of the great and obvious disparity between the height of pre-war and post-war unemployment. The mean of the corrected percentages of Trade Union unemployment from 1860 to 1914 was 4.5. This is also the percentage taken by the Government Actuary in 1919 as the mean percentage of unemployment to be expected in the future over good and bad years in the insured population as a whole. Experience has completely shattered this expectation. For the ten years 1921 to 1930 the annual percentage unemployed in the insured population has averaged 12.3. By 1925 one might have expected the effect of the war and of the 1921-22 depression to have almost disappeared. But we find an unemployment percentage which has not fallen below 8.7 (May, 1927) in any single month. Great Britain has been carrying an army of unemployed persons never falling below a million and rising (in 1930) to nearly three million.

GREAT BRITAIN

Certain circumstances may be mentioned which partly, but only partly, account for this. Great Britain, it may be contended, has been unfortunate. The time and manner of her return to the Gold Standard in April, 1925, had a bad effect on employment - since wages remained "sticky" while sterling prices of British exports fell - but at the time it appeared, on the whole, a wise step. Again, high prices for coal during the immediate post-war years, due mainly to the inaction of normally competing coalfields, attracted labour into the coal-mining industry. The evacuation of the Ruhr and the revival of foreign competition generally was a severe blow for the industry; by reducing the demand for British coal it revealed the fact that under the new conditions perhaps 200,000 men attached to coal-mining were superfluous - and this is one of the most difficult industries from which to transfer workers, owing to its localisation in certain areas (such as South Wales) in most of which other openings for employment are not available. Further, the extent to which Great Britain depends on foreign markets also renders her very sensitive to changes in foreign demand. Thus she has suffered from tariff measures and from the "nationalist" aspirations of some of her customers (such as Eastern countries and Australia) to produce manufactures for themselves, and even from boycott (notably in India) of her goods. Recently she has suffered from the reduced purchasing power of important customers such as Australia and the Argentine, owing to the great fall in price of the raw material and foodstuffs which they export.

But the point to which attention should be drawn is that great and growing unemployment has existed side by side with increasing total production. The percentage of unemployment is not necessarily an index of prosperity. 1929, for example, was admittedly a comparatively good year for Great Britain. The annual index of production quoted shows an increase of 16.2 per cent over 1924. There are very serious difficulties involved in compiling any index of production. That shown in Table III is the one published by the London and Cambridge Economic Service and there is another published by the Board of Trade. Quarterly indices of both types exist. But the indices are far from satisfactory - they are merely the best available. Never-

FLUCTUATIONS IN UNEMPLOYMENT

theless, there can be little doubt that total production increased appreciably over this period, and faster than population. Taken together with the favourable change in the terms of trade due to the fall in price of the raw materials and foodstuffs imported, we can assert that the "real" national income was higher per head in 1929 than in 1924 or the pre-war years - in spite of the heavy unemployment and in spite of the reduction in working hours which occurred between the pre-war and post-war periods. Yet productive capacity was greater still - plant and machinery was to some extent idle and not fully utilised - and the standard of economic well-being would have been much higher still if only the bulk of the unemployed could have been absorbed into industry without the adoption of measures detrimental to productive efficiency, such as a high tariff.

(5) 1930 stands by itself in the period considered. It was a year of very severe slump, the end of which is not yet definitely in sight. In Great Britain the unemployment percentage rose from 12.5 in January to 19.9 in December. Yet Great Britain was not so seriously injured (relatively to preceding years) as other countries, such as Australia and Germany. The slump was world-wide and was marked by very severe falls in the prices of raw materials and foodstuffs. It throws into relief the relative prosperity of the years which preceded it. It was accompanied by the usual symptoms of a pre-war slump—falling wholesale prices, growing unemployment, decreasing production, and general uncertainty and pessimism. The additional unemployment due to the slump may be expected to disappear when recovery begins. But it seems possible that the 1925-29 level of unemployment may remain.

PART. II. THE DISTRIBUTION OF UNEMPLOYMENT.

It is interesting to examine the distribution of the total amount of unemployment:

- (1) among industries;
- (2) among areas;
- (3) among persons according to sex and age;
- (4) among persons according to length of time unemployed.

GREAT BRITAIN

Such an examination must obviously relate to a particular point of time. Some point of time during the last few years has been chosen in each case. The exact date does not matter much, in this connection, as any other date during the last few years would have given broadly similar results.

(1) The Ministry of Labour publishes periodically in the Labour Gazette, statistics showing the unemployment in each industry and in one hundred subdivisions of industry. It is possible to draw from these data a broad distinction between the "heavy" industries, dependent largely on exports, such as coal, iron and steel, engineering, and shipbuilding on the one hand, and all other industries on the other hand. Broadly speaking the "heavy" industries have covered about a fifth of all insured persons during recent years and have been responsible for about two-fifths of the total unemployment. The proportion of workers attached to these depressed industries has been diminishing, as one would expect. New entrants into the labour market have tended to go more towards other industries. Thus for example, the numbers attached to coal-mining fell by 11 % and to pig iron by 19 % while the numbers attached to electrical engineering rose by 50 % and to silk and artificial silk by 115 %, between 1923 and 1930. Nevertheless this movement has not been great enough to equalise unemployment among industries. This is partly due to the territorial localisation of depressed industries. Movement from the industry often involves movement from the area. It is also due to the lack of obvious openings in other industries. Some of the newer manufacturing industries and the "distributing" trades have been expanding, but only fast enough to absorb the increased supply of labour, not fast enough to reduce appreciably the total percentage of unemployed.

The following table (see following page) shows the position in April, 1929. The industries named covered 4,163,000 workers, of whom 605,000 were unemployed - a percentage of over 14.5. The other industries covered 7,719,000 workers, of whom 576,000 were unemployed - a percentage of less than 7.5.

The great increase in unemployment in 1930 especially affected the textile industries. Cotton suffered most. In 1929 the cotton

FLUCTUATIONS IN UNEMPLOYMENT

Distribution of Unemployment by Industries in April, 1929.
(From the Ministry of Labour Gazette, May, 1929)

| Industry | Numbers Insured (July, 1928) Thousands | Numbers Unemployed (April 22nd, 1929) Thousands |
|---|--|---|
| Cotton | 554 | 76 |
| Woollen and Worsted | 243 | 26 |
| Building | 817 | 83 |
| General Engineering, etc. | 582 | 53 |
| Coal Mining | 1116 | 176 |
| Shipping Service | 139 | 23 |
| Public Works Contracting | 160 | 33 |
| Iron and Steel | 179 | 33 |
| Shipbuilding and Ship Repairing | 202 | 46 |
| Dock, Harbour, etc. Service | 171 | 56 |
| All other Industries | 7719 | 576 |
| All Industries | 11882 | 1181 |

industry actually employed 9 % more workers than in 1923. In 1930 it employed 25 % fewer workers than in 1923.

(2) The best classification into areas available for our purpose, is that into the eight Employment Exchange areas. This shows that the South of England and the Midlands have suffered least. These are the areas in which most of the expanding industries are situated. London, in contrast to Berlin or Sydney, is a comparatively "bright" spot. Some movement towards these areas has been going on but (as in the case of industries, treated above) the distribution of unemployment (not employment) by areas has remained about the same during recent years.

The following table selects two dates: January, 1926, and April, 1928, which represent sufficiently well the distribution by areas during recent years:

| Division | Percentage of Insured Persons Unemployed in | |
|-------------------------|---|-------------|
| | January, 1926 | April, 1928 |
| London | 7.7 | 5.3 |
| South Western | 6.8 | 4.9 |
| Midland | 8.2 | 8.0 |
| North Eastern | 14.2 | 13.1 |
| North Western | 11.0 | 10.8 |
| Scotland | 15.7 | 11.1 |
| Wales | 14.4 | 19.5 |

GREAT BRITAIN

(3) In April, 1926, the total unemployed were distributed as follows:

77 % men.

16 % women.

3 % boys under 18.

3 % girls under 18.

Two years later - in April, 1928 - the proportion of men was even higher, namely 80 %. Broadly speaking, the percentage of unemployed in the older age-groups is greater than in the younger. Thus the British unemployment problem relates mainly to men and especially to middle-aged and elderly men.

(4) It has been officially estimated that during any year in which the total number of unemployed persons averaged one million, over three million separate persons would have been registered as unemployed, for any period from one to three hundred and sixty five days. Thus "the unemployed" do not consist, year in and year out, of the same persons. The personnel may be constantly changing whilst the total number of "unemployed" alters little. This raises the question: To what extent is there a solid core of unemployed persons who are continuously unemployed? Some light is thrown on this by the "Report on an Investigation into the Unemployment Insurance History of a Sample of Persons Insured against Unemployment" (1927). The investigation was an official one, covering a large sample and all areas. It showed that in the 3½ years ending April 4th, 1927, approximately 17 % of the males had been in receipt of benefit for more than half the whole period. About 50 % of the males (including this 17 %) had been in receipt of benefit for more than one-fifth of the whole period. Clearly this 17 per cent represents a solid core of unemployed and consists almost entirely of:

- (a.) men, largely in the older age-groups, attached to contracting industries in depressed areas, and to a less extent of
- (b.) men lacking in normal eligibility for employment on account of lack of capacity or willingness to work.

It is this "solid core" which bears most heavily upon the Unemployment Insurance Fund.

FLUCTUATIONS IN UNEMPLOYMENT

Further information upon the personnel of the unemployed is provided by three "Reports on Investigations into the Personal Circumstances and Industrial History of Samples of Claimants to Unemployment Benefit" (1924, 1925, and 1928). These investigations were made by the Ministry of Labour. The primary object of the first, at least, of these investigations was to test the allegation that the benefits of the Insurance Scheme were being widely abused. The allegation was disproved, but in addition the information collected has been turned to administrative account, and incidentally is useful for our present purpose.

In November, 1924, the circumstances of no less than 11,000 claimants were scrutinised on the basis of a 1 % selection from the registers of every Employment Exchange. It was found that 63 % of the males and 77 % of the females were persons who in normal times would have been in steady employment. (The enquiry of April, 1927, produced almost identical results). But over half of the whole sample had outrun their claim to standard insurance benefit and were receiving benefit not justified by their contributions. Again, 28 % of the men had worked for less than thirty weeks out of the preceding hundred-and-twenty-two weeks. This, together with the fact that in the opinion of the officials, no less than 37 % of the men were not "fully equipped industrial units", is not reassuring. Very broadly we may make a division of the unemployed into three categories, not sharply defined, and each covering many lesser distinctions.

We have:

- (1.) The comparatively regular worker who needs in his spells of unemployment just the assistance provided by the Unemployment Insurance Scheme.
- (2.) The worker deprived of unemployment through changes in industrial structure or demand or through other causes over which he has no direct control. This class is largely concentrated in the depressed industries and areas.
- (3.) Persons who, while still in the labour market, suffer from comparative ineligibility, since from personal or external causes

GREAT BRITAIN

they are below the current standard for regular work. It is in this class that the nucleus of "chronic" unemployment is to be found.

We must conclude this section, however, with a word of caution. These sample enquiries could not and did not cover really detailed investigations into the circumstances of the persons considered and there is controversy as to what conclusions can legitimately be drawn from their results. An important feature which they do not show has been the greater insistence of Trade Unions upon the payment of "standard rates" (as compared with pre-war times) leading to the frequent unemployment of persons somewhat below normal capacity.

PART III. THE CAUSES OF UNEMPLOYMENT.

It should be borne in mind that this subject is in part a controversial one and that it cannot be treated adequately in a summary report such as this. Further, attention should be drawn to the methods of measuring unemployment (explained in the Notes) and especially to the existence of "short-time" and of unemployed persons not included in the Insurance Scheme, many of whom are receiving assistance from local authorities.

One summary way of classifying the unemployment existing in 1930 according to "causes" is as follows: The "normal" pre-war forces preventing exact correspondence between supply and demand in different areas, industries, occupations, and firms - forces such as lack of knowledge and incomplete mobility - together with seasonal disturbances and "unemployability", still exist. Let us say, as a guess, that they accounted for an unemployment percentage of five, or in absolute numbers, about 625,000, in 1930. Secondly, the very severe slump of 1930 produced an increasing amount of unemployment during 1930 which averaged, say, five per cent, or perhaps 600,000. But the mean percentage of unemployment, in absolute numbers about 2,000,000, in 1930 was sixteen. This leaves a percentage of six unaccounted for. Thirdly then, we have a percentage of, say, six, or about 750,000 at least, due to conditions peculiar to the post-war years. Controversy arises in the discussion of these peculiar

FLUCTUATIONS IN UNEMPLOYMENT

conditions, in the explanation of the 1930 (and after) slump, and in the consideration of remedies for unemployment. Hence any views expressed here on such matters must be taken as those of the writer - although, in fact, similar views are held by high authorities.

Comments will be made under the following headings:

- (1) "Unemployability".
- (2) Seasonal Fluctuations.
- (3) Lack of knowledge, Imperfect mobility, Methods of engaging labour.
- (4) Cyclical movements.
- (5) "Rationalisation".
- (6) Special Post-war Difficulties of Great Britain.
- (7) Rigidity of Wages and Working Conditions.

(1) "Unemployability."

This term is here used to cover the condition of those persons who are not physically incapacitated and whose mental condition has not led to their confinement in insane asylums or similar institutions, but who nevertheless appear incapable of rendering continuous and useful services to an employer. They are on the labour market; they are included (except during occasional brief spells of work) among the unemployed; but they are "unemployable".

No exact estimate of the numbers of such persons in Great Britain has been made. Before the war, the number of permanent vagrants was estimated at between twenty and thirty thousand¹, and the percentage of unemployment among the Trade Unions reporting fell at times below 2.0. There is no evidence that the numbers of "unemployable" persons are substantially greater than before the war. All authorities agree that the Unemployment Insurance Scheme has caused very little "demoralisation" of individuals. The increase in the recorded number of mentally defective persons (which includes many of the "unemployable") may be largely explained by stricter methods of recording.

¹ By the Departmental Committee on Vagrancy which reported in 1906.

GREAT BRITAIN

It may safely be assumed that the number of "unemployable" persons was comparatively small before the war, and that since the war it has been - when compared with the large total of unemployed - relatively negligible.

(2) Seasonal Fluctuations.

The Unemployment Insurance statistics make it possible to trace some seasonal movement in nearly every important industry during the post-war years. Undoubtedly such movements occurred also before the war, and this is shown by the Trade Union returns for most of the industries covered by them. Different industries have their slack times at different seasons. Thus the worst months for building (1907-1913) were December and January and for printing August and September. Again, the seasonal fluctuations in some industries are greater than in others. Thus unemployment in furnishing (1907-1913) ranged from 4.3 % in April and May to 10.4 % in January; in Engineering the range was only from 5.2 % in February to 6.3 % in December.

Both before and since the war, there has been a seasonal movement over all industries taken together; slack times in some industries have been partly but by no means entirely balanced by busy times in others. A complete dove-tailing of employment in different industries has not been, and perhaps - owing to climatic conditions and consumers' habits - cannot be, attained. The variation during 1907-1913 was from 4.2 per cent in May to 4.9 per cent in December, around a mean of 4.5 per cent. The variation during 1922-29 (omitting 1926) was from 10.5 per cent in May to 12.6 per cent in January around a mean of 11.1 per cent. In both periods the April to July period was the best for employment. Before the war, the worst months were December and January; since the war, January and February. It will be seen that seasonal fluctuations are not very violent, especially when compared with those of other countries, such as Germany. The fact that they have not been eliminated from the Table - owing to the misleading results which would be obtained by taking the 1910 to 1930 period as a whole for the purpose² - is,

² Owing to (i) the large number of abnormal months and years and (ii) the greater fluctuations in the post-war as compared with the pre-war period.

FLUCTUATIONS IN UNEMPLOYMENT

therefore, not of great importance.

It may be added that seasonal slackness is met sometimes by making for stock, sometimes by working short time (notably in coal-mining and to a less extent in textiles), and sometimes by subsidiary occupations in other industries which are then busy, whilst the tendency is for seasonal fluctuations to be recognised as a normal feature of the industry and to be allowed for in the standard of wages and the "spreading" of workers' expenditure.

(3) Lack of Knowledge. Imperfect Mobility. Methods of engaging Labour.

These three factors are grouped together because they have been responsible for a certain amount of unemployment throughout the period. They have operated persistently both before and since the war, and during both booms and slumps.

The lack of knowledge referred to is a lack of complete knowledge of the "labour market" on the part of both workers seeking jobs and employers seeking labour. Thus an employer may wish to engage workmen of a certain kind and suitable workmen may be unemployed and prepared to accept his offer, but the two may not be able readily to get in touch with one another.

Imperfect mobility of workers exists both between areas and between occupations and industries. Unemployed workers may be loath to leave their district in order to obtain work elsewhere, for many reasons. Movement may involve separation from other members of their family (who are perhaps employed in that district) or from their friends. It may involve giving up all kinds of local connections, associations, and amenities to which they have become attached. But it may also be due to ignorance of jobs available elsewhere or to inability to meet the expense of moving. Unemployed workers may be loath to change their occupation because they like it or because they like the persons or institutions connected with it. But again ignorance of openings in other occupations or lack of funds to provide the training or equipment required may also be obstacles.

Under "mobility" may be considered also the new supplies of juvenile labour coming forward. Ignorance and lack of suitable guidance may prevent youths and girls leaving school from

GREAT BRITAIN

entering those occupations where they are most needed and in which, therefore, their prospects are best, and the immediate prospects of comparatively high earnings may attract some of them into "blind-alley occupations".

Finally, some methods of engaging labour tend to create unemployment. This is especially true of occupations in which employment is irregular, and in which workers are "casually" engaged from among those presenting themselves at the place of work every day. The consequence is that more workers become attached to the industry — attracted, perhaps, by the high daily pay — than can be employed in it even at the busiest times. The leading example is dock and wharf labour.

Public Employment Exchanges were established in 1909 to combat these factors. They were intended to put employers seeking labour and workers seeking employment in touch with one another. If it seemed desirable to assist workers to move to definite jobs in another district, they were empowered to advance fares. With the co-operation of educational officials, teachers, and others, they were to give vocational guidance to juveniles, taking into account the capacities of each juvenile, the openings available, and the probable future needs of industry. Finally, they were to promote the "decasualisation" of labour, and especially of dock labour, by restricting employment to a limited number of workers registered with them or in other ways.

The large volume of unemployment since the war does not indicate the complete failure of the Exchanges. If the total supply of labour exceeds the total demand for labour at current wage rates — and it will be urged later that this has been the case — then some unemployment must occur. Nevertheless, the Exchanges could perform useful work in preventing the total of unemployment from becoming greater than such a disequilibrium (and "unemployability") rendered inevitable. Undoubtedly they have performed, and are performing, such useful work.

Two post-war additions to the work of the Exchanges may be noted. The first is the establishment of Training Centres, in 1925. These Centres train persons either for agricultural employment overseas or for industrial employment in Great

FLUCTUATIONS IN UNEMPLOYMENT

Britain. The second is the Industrial Transference Scheme. The object of this is to transfer men from depressed mining areas to other districts, where definite jobs are available. Transference has proceeded slowly owing to the large proportion of unemployed miners having large families and the difficulty of housing such families in districts with expanding industries, the loss of industrial quality of some of the miners who have been unemployed for a considerable period, and the lack of suitable openings elsewhere.

It might be urged that since unemployment exists in all areas and occupations little good can be done by promoting mobility. The fact remains that some areas and some occupations are expanding and that other areas and occupations have an apparently permanent surplus of labour. Thus transference of suitable persons from the depressed areas seems a move in the right direction, and the work of the Exchanges is still important and necessary.

Two factors, however, have hampered the Exchanges in the performance of their original functions. In the first place, they have been overburdened with the work of administering the Unemployment Insurance Scheme. In the second place, employers have not co-operated with them as fully as might have been wished. The majority of employers do not engage most of their labour through the Exchanges, and attempts to "decasualise" dock labour have been frustrated (although here the opposition has come also from the workers). Yet the Exchanges are as much needed as ever, for the factors dealt with in this section still give rise to unemployment, although during the post-war years they have been somewhat overshadowed by others still more potent.

(4) Cyclical Movements.

Our period contains two very serious slumps: that of 1921-22 and that of 1930, which still continues.

The 1921-22 slump showed an unemployment percentage never falling below 15 from April, 1921 to June, 1922, nor below 14 from July to November, 1922. The figures for April to August, 1921, however, including the peak of 20.6 % in June, were

affected by the general coal-mining stoppage.

The year of 1930 showed an unemployment percentage increasing fairly steadily from 12.5 in January to 19.9 in December.

Both were periods of rapidly falling wholesale prices. The Statist (Sauerbeck) index number, based on 1867-77 = 100, reached a peak of 266.1 in April, 1920. It fell comparatively slowly to 253.5 in August and then - five months before the marked increase in unemployment began - it commenced to fall rapidly to 129.1 in December, 1922, after which it rose very gradually until the return to the gold standard in April 1925. Between this date and December, 1929 it showed a general downward trend, from 137.5 to 108.8. During 1930 the fall was rapid, and in December, 1930 the index number was 86.9.

Nevertheless there are striking differences between the two slumps. That of 1921-22 was the expected consequence of the preceding boom period of obvious inflation; it was in part due to the necessity of adapting the economic structure, which had been distorted by the war period, to meet the changed conditions of a post-war world at peace; it was accompanied by a policy of deliberate deflation. That of 1930 followed a period of slowly falling prices; it came after nearly a decade of reconstruction and of partial adaptation to the post-war conditions; it was not accompanied by a policy of deflation.

The great discrepancy between wholesale and retail prices during recent years, and especially 1930, is also a new phenomenon. In the first quarter of 1925 wholesale prices were 169 and retail prices 179 as against 100 for 1913 in each case. But the fall in wholesale prices since then was not accompanied by a proportionate fall in retail prices. In the fourth quarter of 1929 the former had fallen to 134 but the latter were still at 168, and in the fourth quarter of 1930 the former had fallen to 111 and the latter only to 156. It has been urged that the discrepancy is not as great as these index numbers indicate. In the first place, rents are included in the retail ("cost of living") index number and not in the wholesale index number. The Rent Restriction Acts kept rents low during the immediate post-war years, and since 1925 their course has been upward rather than downward. In the second place, retail "sales" have been more

FLUCTUATIONS IN UNEMPLOYMENT

common than usual during recent years and the reductions have been greater, but the index is based on ordinary and not sale prices. In the third place, retailers provide rather better service (e.g. delivery) than formerly. Nevertheless these factors can explain only part of the discrepancy.

Opinions vary as to the causes of the 1930 collapse. Insufficiency and maldistribution of monetary gold supplies, and credit restrictions (notably by the Federal Reserve System in 1929, in order to combat the New York Stock Exchange speculation) have been suggested. But these explanations are not very convincing. There is no real evidence that the supply of monetary gold, which has been increasing steadily in recent years, is insufficient, nor does its "maldistribution" explain the continued depression in the United States. For over a year discount rates have been low and credit supplies abundant in most leading countries, yet the slump persists. An alternative explanation is that the period 1927 to 1929 was one of "boom" conditions, despite the falling price level, similar to those of pre-war times. Further, there was apparently relative overproduction of some raw materials and foodstuffs due to lengthy "periods of gestation", improved methods of production, and the temporary support afforded to their prices by various restriction schemes, the breakdown of which intensified the subsequent collapse. Great Britain shared these boom conditions only in part and - partly for that reason - she has not suffered as badly as most countries from the subsequent slump. She has suffered, however. In the first place, the purchasing power of some of her best customers has been greatly reduced owing to the fall in price of the raw materials and foodstuffs which they export. In the second place, the comparative rigidity of her wage-structure has prevented the rapid making of adjustments required to meet the new conditions.

(5) "Rationalisation".

The relevant aspect of "rationalisation" in this connection is the partial substitution of capital, in such forms as plant and machinery, for labour. Of course, such substitution has been occurring throughout the last 150 years. During recent years, however, it is alleged to have proceeded at such a pace in some

GREAT BRITAIN

countries, notably Germany and the United States, as to cause serious unemployment. Here we need not discuss the extent to which "rationalisation", alone or combined with other factors, gives rise to unemployment. For there is no evidence that "rationalisation" has taken place in Great Britain during recent years on an appreciable scale.

In the first place, there is little direct evidence of it. The only obvious and important examples seem to be the heavy chemical industries and railway workshops. In the second place, the indirect evidence can be explained on other grounds. This indirect evidence is to be found in statistics of production per worker employed. Available statistics of production are very imperfect, as explained in the Notes, but they do seem to indicate an increased production per worker employed during recent years. Thus the annual index of production shown in the Tables rose between 1924 and 1929 from 100 to 116. The total employed population over the same period increased from some 9,500,000 to some 10,200,000 persons, by about 7 per cent, and the proportion of those employed in "distributive" and other industries not covered by the Census of Production probably increased. But this increased production can be largely explained by improvements in organisation and methods rather than by an increase in the proportion of "fixed" capital used. Thus for Great Britain "rationalisation" is undoubtedly a problem for the future, but it throws little light upon the causes of unemployment during the last twenty years.

(6) Special Post-war Difficulties of Great Britain.

These have already been mentioned, but may be repeated and amplified a little here. The violent deflation which occurred after the immediate post-war boom may have been a mistake; it might have been better to devalue. But, once accomplished, the return to the Gold Standard in April, 1925 seemed at the time to be, on balance, a wise step. It was hoped that the price level of the United States might rise while the British price level remained fairly steady and that, failing this, wages would be comparatively plastic. But prices moved downwards rather than

FLUCTUATIONS IN UNEMPLOYMENT

upwards while wages remained "sticky". Then came the evacuation of the Ruhr, which (while of course most desirable on general grounds) dealt a considerable blow at the over-manned British coal industry. Finally, the nature of the British export trade has rendered her especially vulnerable to the movement towards self-sufficiency among some of her customers and to the effects of the recent drastic fall in all prices of most raw materials and foodstuffs.

(7) The Rigidity of Wages and Working Conditions.

The general level of unemployment in Great Britain since the war has been much higher than before it, even after full allowance has been made for the increase of population (by using percentages), for seasonal fluctuations, and for the depressions of 1921-22 and 1930. The increase cannot be explained by lack of mobility in the face of changing demand, although that, too, has been of importance. For unemployment at or above the pre-war level has existed in nearly all industries and areas. Further, most of the large industries which increased their numbers in the war, such as engineering, had less than the average unemployment by 1929, while those which contracted in the war, such as building, had more than the average. It appears that some new feature has been present throughout the post-war years which has made the level of unemployment higher than before the war and higher than in most other countries. English economists, in general, believe that this new feature is the comparative rigidity of wage-rates. It would require a great deal of space to discuss this view at all fully. All that can be done here is to present the general thesis somewhat baldly and to indicate the chief statistical evidence which appears to support it.³

Theoretically, the position is fairly simple. Employers will not continue to employ labour at a loss. If reduction of staffs means cutting down costs more than receipts, then staffs will be reduced. If the increased receipts arising from the employment of addi-

³ For further discussion of the matter see: Sir W. H. Beveridge: "Unemployment (1930)", Chapter XVI. and the references there cited.

GREAT BRITAIN

tional labour do not cover the increased costs, then additional labour will not be employed. At any moment - assuming changes in staffs arising from recent changes in conditions have been made - it pays employers as a whole neither to increase nor to reduce their labour force unless fresh changes in conditions occur or are anticipated. The conditions in question are, of course, those affecting receipts on the one hand and costs on the other hand. The statistical support for the thesis under discussion is usually provided by a consideration of the relation between two only of these various conditions, namely, prices and wages. The provision of such statistical support involves three main difficulties.

In the first place, the fullest and most accurate statistics conceivable relating to one point of time would not show whether or not wage-rates were too high to provide full employment, for they would not show how many persons would be employed if wage-rates were different. A disharmony of this kind could be inferred only from the percentage of unemployment itself, but that is the result of other factors as well as of relatively high wages.

In the second place, when a comparison is made of the relations between prices and wages over a period of time, it is assumed that other conditions have not changed in such a way as to affect the conclusions drawn from that comparison. Receipts are the product of the number of units produced and the price per unit, so that the "other condition" on the receipts side is productivity. On the "costs side" the "other conditions" relate to costs other than labour costs, including changes due to different methods of production, such as the use of a greater or smaller proportion of capital.

In the third place, statistics even of prices and wages are imperfect. The relevant price index number should relate to the prices of goods and services produced with the aid of labour in Great Britain, but no such index number exists. The index number of wages should really relate to earnings over all industries, and here again no completely adequate index exists.

Yet these difficulties are not completely insuperable. In the first

FLUCTUATIONS IN UNEMPLOYMENT

place, it is clear from observation that the other factors making for unemployment, discussed in the preceding pages, are quite insufficient to account for the high post-war percentage of unemployment. In the second place, it is known that few drastic changes in methods of production - including rationalisation - have taken place during our period. Further, Dr. Bowley and Sir Josiah Stamp have shown that "the real home-produced income per head (when duplication is eliminated) was very nearly the same in 1911 and 1924".⁴ In the third place, the index of nominal wages is fairly satisfactory for our purpose (see Notes) while the Board of Trade wholesale price index can be used in the absence of a more appropriate one.

We know that before the war unemployment was comparatively small. Such unemployment as existed could be explained mainly by inadequate mobility and similar factors. If we take 1913 (=100) as the base year for our indices of wholesale prices and wages we can compile a third index of wages divided by wholesale prices, which we may call the quotient, also based on 1913=100. We can then compare variations in the quotient with variations in the percentage of unemployment. This is done in Table III. The general correspondence between the two is obvious. During the pre-war years the quotient was tending slightly downward (and, it may be added, productivity was increasing) and unemployment was tending to diminish. The war years were exceptional but the general correspondence remains. It is the post-war years, however, with which we are concerned. It can be seen at a glance that throughout the last ten years the quotient has been well above the pre-war level - and so has unemployment. In 1921-22, a period of deflation and depression, prices fell greatly. Wages fell also, but they "lagged" behind prices and did not fall as much. Unemployment was heavy. In 1923 and 1924 the quotient became less and so did unemployment. In 1925, with the return to the Gold Standard, prices again began a downward course but wages remained almost rigid. During 1925 and 1926 unemployment increased and in 1930, with the quotient at a maximum for the period of 161, unemployment

⁴ "The National Income 1924", page 56.

GREAT BRITAIN

also reached a maximum of 16 %. The years 1927, 1928, and 1929, however, do not show the same correspondence. The quotient was somewhat higher than in the five previous years but unemployment was somewhat less. This can perhaps be ascribed to an increase in a factor assumed constant, namely, productivity. The annual index of total production rose from 100 in 1924 and 90.2 in 1926 (the year of the general coal stoppage) to 110.2 in 1927, 108.5 in 1928, and 116.2 in 1929. Between 1924 and 1929 the total employed population increased by 7 % and owing to the growing proportion in the distributive trades and newer industries it is probable that the numbers employed in the industries to which the Index of Production relates increased by less than 7 %. Thus productivity probably increased appreciably during the years in question.

Perhaps at this stage one may try to guard against some of the many misconceptions which may arise. It is not asserted that wage-earners "ought" to get less. It may be considered desirable to maintain and even perhaps to increase the standard of life of wage-earners in employment. That is not discussed in these pages. What is asserted is that more wage-earners would have been employed if wages had not remained comparatively rigid during the last few years of falling prices. Nor is it asserted that relatively high wages "cause" unemployment. Many factors are involved, and during periods of acute depression such as 1921-22 and 1930, doubtless considerable unemployment would have prevailed even if wages had been appreciably lower. Again it might be urged that the adoption of better methods and organisation on the part of employers would have increased productivity and enabled the prevailing wage-rates to be paid without much unemployment. All that is asserted is that if wage-rates had been lower - as things actually were - unemployment would have been less. Finally, it is not suggested that a general proportionate reduction of all wage-rates would have been necessary to avoid abnormal unemployment. Some wage-rates would have had to come down appreciably, others comparatively little. What was needed was more flexibility and less rigidity.

FLUCTUATIONS IN UNEMPLOYMENT

Why has rigidity of wages been so much more marked since the war? The immediate cause has been the deliberate policy of Trade Unions. They have pursued the laudable object of maintaining and increasing the standard of life of their members. It may be suggested, however, that the wrong policy has been pursued in endeavouring to attain this end. Restrictive practices hindering the mobility of labour, such as some apprenticeship regulations, or preventing the adoption of better methods of production, have prevented productivity from increasing as much as it would otherwise have done. Comparatively high wages have benefited those employed but have done so at the cost of heavy unemployment. Undoubtedly the National Insurance Scheme has assisted the Unions to maintain their policy. Before the war, the drain on their funds arising from abnormal unemployment among their members would have led them to lower their wage-rates. Since the war, the unemployed in one industry or occupation are in effect supported by those employed in all industries, assisted during recent years, by the Government. It is in this way, rather than in the alleged tendency of some persons in poorly-paid occupations to prefer the receipt of benefit to work, that the Unemployment Insurance Scheme may be said to have increased rather than prevented unemployment.

PART IV. THE PARADOX OF UNEMPLOYMENT IN THE MIDST OF ECONOMIC PROGRESS.

The general standard of living in Great Britain is probably higher than before the war. A recent inquiry by the Ministry of Labour shows that weekly full time rates of wages, for those classes of adult workpeople for which information is available, averaged between 70 and 74 per cent above the level of August 1914, in December 1930. (It is known that weekly earnings, of which our wage index takes account, increased still more.) Considerable reductions in normal weekly working hours were made in nearly all industries in 1919 and 1920, so that the Ministry of Labour considers that hourly rates were between 90 and 100 per cent higher at the latter date. The cost of living, however, was less than 60 per cent higher at the latter date. Thus "real" weekly wages were appreciably greater, and hours of work were

GREAT BRITAIN

less. At the same time, the transference of income through the machinery of Public Finance, from the relatively rich to the relatively poor was much greater. The contributions by State and local authorities to Public Social Services such as Health and Education rose from some £59 million in 1911 to some £266 million in 1928. Yet against this must be set the growing numbers of unemployed which tended to bring down average "real" yearly earnings.

During these twenty years, methods of production have improved, technical efficiency has increased, and the productive capacity of the world appears greater than ever before. Undoubtedly a marked increase of economic welfare would take place if only the vast number of unemployed could be absorbed into industry. The problem is a world problem. For example, tariffs in one country may affect employment in another; lower "efficiency" wages in the export industries of one country may compel lower actual wages or unemployment among some of her competitors; monetary policy, which can do so much to cause or cure unemployment, is a question which demands international co-operation; depression in one country re-acts upon her customers from whom she can purchase less; and so one might continue. The world is now a unit; production is, in many cases, for a world market; the policies and economic position of one country re-act upon others. The problem will be finally solved only by intelligent co-operation between the nations of the world.

London, March 30th, 1931.

INDEX OF MAIN TABLES.

- TABLE I. UNEMPLOYMENT IN GREAT BRITAIN 1910-1930.
(Trade Union and National Unemployment Insurance "Un-
employed" Percentages)
(Monthly Percentages and Annual Means)
- TABLE II. INSURED PERSONS IN ACTUAL EMPLOYMENT AND
INSURED PERSONS ATTACHED TO INDUSTRY IN
GREAT BRITAIN AND NORTHERN IRELAND, JUNE
1923-JUNE 1930.
(A) Index Numbers representing the estimated numbers of
insured workers in employment. (Annual Indices)
(B) Index Numbers representing the total estimated num-
bers insured. (Annual Indices)
- TABLE III. THE TREND OF PRODUCTION, UNEMPLOYMENT, NO-
MINAL WAGES, WHOLESALE PRICES AND THE COST
OF LIVING IN GREAT BRITAIN 1910-1930. (Annual Indices)
- TABLE IV. EMPLOYMENT IN INDIVIDUAL INDUSTRIES IN GREAT
BRITAIN 1910-1930.
(Coal Mining, Railway Service, Shipping, Iron & Steel)
(Annual Absolute Figures)
- TABLE V. PRODUCTION OF COAL, IRON ORE, PIG IRON & STEEL
IN GREAT BRITAIN 1910-1930.
(Annual Absolute Figures)

TABLE I. UNEMPLOYMENT IN GREAT BRITAIN 1919-1930

| Trade Union and National Unemployment Insurance "Unemployed" Percentages | | | | | | | | | | | |
|--|------|------|-------------------|------|------|------|------|------|------|------|------------------|
| (Trade Union percentages up to 1926 (inclusive); Ministry of Labour (National Unemployment Insurance) percentages 1927—1930) | | | | | | | | | | | |
| | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 |
| Jan. | 6.8 | 3.9 | 2.7 | 2.2 | 2.5 | 1.9 | 0.6 | 0.3 | 1.0 | 2.4 | 2.9 |
| Feb. | 5.7 | 3.3 | 2.8 | 2.0 | 2.3 | 1.6 | 0.5 | 0.3 | 0.9 | 2.8 | 1.6 |
| Mar. | 5.2 | 3.0 | 11.3 ¹ | 1.9 | 2.1 | 1.3 | 0.5 | 0.3 | 1.2 | 2.8 | 1.1 |
| Apr. | 4.4 | 2.8 | 3.6 | 1.7 | 2.1 | 1.2 | 0.5 | 0.3 | 0.9 | 2.7 | 0.9 |
| May | 4.2 | 2.5 | 2.7 | 1.9 | 2.3 | 1.2 | 0.5 | 0.4 | 0.9 | 2.1 | 1.1 |
| June | 3.7 | 3.0 | 2.5 | 1.9 | 2.4 | 1.0 | 0.5 | 0.4 | 0.7 | 1.7 | 1.2 |
| July | 3.8 | 2.9 | 2.6 | 1.9 | 2.8 | 0.9 | 0.4 | 0.4 | 0.6 | 2.0 | 1.4 |
| Aug. | 4.0 | 3.3 | 2.2 | 2.0 | 7.1 | 1.0 | 0.4 | 0.5 | 0.5 | 2.2 | 1.6 |
| Sept. | 4.3 | 2.9 | 2.1 | 2.3 | 5.9 | 0.9 | 0.4 | 1.3 | 0.5 | 1.6 | 2.2 |
| Oct. | 4.4 | 2.8 | 2.0 | 2.2 | 4.4 | 0.8 | 0.3 | 1.1 | 0.4 | 2.6 | 5.3 ¹ |
| Nov. | 4.6 | 2.6 | 1.8 | 2.0 | 2.9 | 0.6 | 0.3 | 1.1 | 0.5 | 2.9 | 3.7 |
| Dec. | 5.0 | 3.1 | 2.3 | 2.6 | 2.5 | 0.6 | 0.3 | 1.4 | 1.2 | 3.2 | 6.0 |
| Yearly Mean: | 4.7 | 3.0 | 3.2 | 2.1 | 3.3 | 1.1 | 0.4 | 0.7 | 0.8 | 2.4 | 2.4 |

Note: During the War men with the forces were excluded from the base in working the percentages.
¹ Affected by the general Coal Mining Stoppage.
 The Trade Union percentages are from the 19th Abstract of Labour Statistics.
 The Insurance percentages are from the Ministry of Labour Gazette.

TABLE I. (Continued).

| Unemployment in Great Britain 1910—1930 | | | | | | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|------|------|------|
| Trade Union and National Unemployment Insurance "Unemployed" Percentages | | | | | | | | | | |
| (Trade Union percentages up to 1926 (inclusive); Ministry of Labour (National Unemployment Insurance) percentages 1927—1930) | | | | | | | | | | |
| | 1921 ¹ | 1922 ¹ | 1923 ¹ | 1924 ¹ | 1925 ¹ | 1926 ¹ | 1927 | 1928 | 1929 | 1930 |
| Jan. | 7.1 | 16.5 | 13.6 | 8.5 | 9.0 | 10.6 | 11.9 | 10.6 | 12.2 | 12.5 |
| Feb. | 8.7 | 16.2 | 12.9 | 8.2 | 9.4 | 10.4 | 10.8 | 10.4 | 12.2 | 13.0 |
| Mar. | 10.2 | 16.2 | 12.2 | 7.8 | 9.0 | 10.1 | 9.8 | 9.5 | 10.0 | 13.9 |
| Apr. | 15.1 ¹ | 16.8 | 11.2 | 7.5 | 9.4 | 10.0 | 9.3 | 9.5 | 9.8 | 14.4 |
| May | 19.9 ¹ | 16.2 | 11.2 | 7.0 | 10.1 | 13.2 ¹ | 8.7 | 9.7 | 9.8 | 15.2 |
| June | 20.6 ¹ | 15.5 | 11.0 | 7.2 | 12.3 | 12.9 ¹ | 8.8 | 10.6 | 9.5 | 15.2 |
| July | 16.9 ¹ | 14.5 | 10.9 | 7.4 | 11.2 | 13.2 ¹ | 9.1 | 11.4 | 9.6 | 16.5 |
| Aug. | 16.6 ¹ | 14.1 | 11.1 | 7.9 | 11.4 | 13.3 ¹ | 9.2 | 11.4 | 9.8 | 16.9 |
| Sept. | 15.0 | 14.4 | 10.9 | 8.6 | 11.4 | 13.6 ¹ | 9.2 | 11.2 | 9.9 | 17.4 |
| Oct. | 15.7 | 14.0 | 10.5 | 8.7 | 11.3 | 13.6 ¹ | 9.5 | 11.7 | 10.3 | 18.5 |
| Nov. | 16.1 | 14.2 | 10.2 | 8.6 | 11.0 | 13.2 ¹ | 9.9 | 12.1 | 10.9 | 18.0 |
| Dec. | 16.2 | 13.8 | 9.3 | 9.2 | 11.0 | 12.2 ¹ | 9.8 | 11.1 | 11.0 | 19.9 |
| Yearly Mean : | 14.8 | 15.2 | 11.3 | 8.1 | 10.5 | 12.2 ¹ | 9.7 | 10.9 | 10.4 | 16.0 |

Note: During the War men with the forces were excluded from the base in working the percentages.

¹ Affected by the general Coal Mining Stoppage.

² The Trade Union figures from 1921 onwards exclude Pottery trade operatives. From July, 1924, onwards Building operatives are also excluded from the General Average.

The Trade Union percentages are from the 19th Abstract of Labour Statistics.

The Insurance percentages are from the Ministry of Labour Gazette.

TABLE II. INSURED PERSONS IN ACTUAL EMPLOYMENT AND INSURED PERSONS ATTACHED TO INDUSTRY IN GREAT BRITAIN AND N. IRELAND

Variations in the Period June, 1923—June, 1930

TABLE A

| Index Numbers representing the estimated numbers of insured workers in employment | | | | | | | | |
|---|------|-------|-------|-------|-------|-------|-------|-------|
| June 1923 = 100 | | | | | | | | |
| Comparison between the end of June of each year | | | | | | | | |
| Industry | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Coal Mining | 100 | 99.0 | 75.8 | * | 79.7 | 69.4 | 74.0 | 69.2 |
| Construction | | | | | | | | |
| Building | 100 | 106.5 | 112.6 | 116.9 | 126.5 | 123.5 | 126.8 | 121.8 |
| Public Works Contracting | 100 | 110.0 | 125.1 | 133.7 | 140.8 | 132.8 | 136.0 | 146.7 |
| Shipping Service | 100 | 100.5 | 107.2 | 104.7 | 115.6 | 112.8 | 114.3 | 108.0 |
| Metals and Machinery: | | | | | | | | |
| Pig Iron (Blast Furnaces) | 100 | 100.0 | 75.2 | 23.8 | 83.5 | 75.9 | 80.7 | 72.6 |
| Brass, Copper, Zinc, Tin, Lead | 100 | 101.2 | 105.7 | 94.3 | 104.3 | 100.7 | 110.2 | 100.5 |
| Iron and Steel tubes | 100 | 115.1 | 108.2 | 96.3 | 117.9 | 119.6 | 130.0 | 116.8 |
| Constructional Engineering | 100 | 103.5 | 112.1 | 109.8 | 124.3 | 123.2 | 127.5 | 117.5 |
| General Engineering, | | | | | | | | |
| Engin. Iron and Steel Founding | 100 | 101.5 | 103.9 | 94.6 | 103.2 | 104.2 | 105.8 | 98.7 |
| Motor Vehicles, Cycles and Aircraft | 100 | 109.4 | 116.4 | 116.0 | 126.8 | 126.3 | 134.4 | 125.2 |
| Stove, Grate, Pipe, etc., and General | | | | | | | | |
| Iron Founding | 100 | 103.1 | 108.8 | 106.8 | 116.2 | 117.5 | 120.8 | 114.9 |
| Electrical Engineering | 100 | 119.4 | 126.3 | 119.0 | 132.8 | 135.8 | 144.4 | 148.8 |
| Marine Engineering | 100 | 108.7 | 94.0 | 80.0 | 94.3 | 94.7 | 105.9 | 101.1 |
| Steel Smelting & Iron Puddling, Iron & Steel Rolling and Forging | 100 | 99.9 | 88.1 | 49.0 | 97.1 | 87.0 | 89.6 | 78.8 |
| Textiles: | | | | | | | | |
| Cotton | 100 | 108.9 | 117.7 | 96.8 | 118.9 | 109.7 | 109.0 | 75.1 |
| Woolen and Worsted | 100 | 98.0 | 81.7 | 75.5 | 89.8 | 88.7 | 85.2 | 75.3 |
| Linen | 100 | 107.8 | 80.5 | 91.6 | 113.5 | 88.9 | 102.1 | 87.3 |
| Jute | 100 | 102.8 | 98.4 | 68.0 | 99.4 | 103.3 | 98.2 | 74.2 |
| Textile Bleaching, Printing and | | | | | | | | |
| Dyeing | 100 | 103.6 | 111.2 | 91.0 | 105.2 | 105.9 | 102.8 | 83.2 |
| Hosiery | 100 | 106.9 | 106.0 | 98.8 | 113.2 | 117.9 | 121.2 | 110.5 |
| Silk & Artificial Silk | 100 | 114.2 | 125.0 | 129.7 | 148.5 | 197.0 | 199.6 | 179.4 |
| Railway Service (Non-Permanent Workers) | 100 | 91.2 | 88.3 | 71.6 | 79.4 | 76.8 | 76.1 | 74.5 |
| Total of all Industries and Services | 100 | 103.8 | 102.9 | 90.2 | 108.6 | 107.2 | 110.5 | 106.1 |

From the Ministry of Labour Gazette, February, 1931

TABLE II. (Continued)

TABLE B

| Index Numbers representing the total estimated numbers insured | | | | | | | | |
|--|------|-------|-------|-------|-------|-------|-------|-------|
| June 1923 = 100 | | | | | | | | |
| Comparison between the end of June of each year | | | | | | | | |
| Industry | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Coal Mining | 100 | 101.3 | 99.2 | 98.6 | 96.5 | 92.5 | 89.1 | 88.7 |
| Constructing | | | | | | | | |
| Building | 100 | 101.4 | 106.0 | 112.4 | 118.4 | 119.8 | 121.2 | 122.2 |
| Public Works Contracting | 100 | 104.5 | 117.3 | 130.0 | 132.4 | 130.4 | 134.0 | 151.8 |
| Shipping Service | 100 | 99.3 | 108.5 | 110.7 | 111.8 | 111.0 | 112.8 | 115.0 |
| Metals and Machinery: | | | | | | | | |
| Pig Iron (Blast Furnaces) | 100 | 104.2 | 88.3 | 84.2 | 86.2 | 81.8 | 81.4 | 80.8 |
| Brass, Copper, Zinc, Tin, Lead | 100 | 95.3 | 99.6 | 100.3 | 96.6 | 93.2 | 100.5 | 98.2 |
| Iron and Steel tubes | 100 | 109.1 | 111.2 | 113.1 | 113.3 | 114.5 | 120.1 | 122.5 |
| Constructional Engineering | 100 | 103.2 | 111.4 | 116.7 | 118.2 | 120.4 | 124.6 | 123.4 |
| General Engineering, Engineer's Iron and Steel Founding | 100 | 94.2 | 93.5 | 91.8 | 90.0 | 90.7 | 91.4 | 92.3 |
| Motor Vehicles, Cycles and Aircraft | 100 | 106.1 | 111.6 | 116.6 | 121.4 | 123.9 | 129.5 | 130.4 |
| Stove, Grate, Pipe etc., and General Iron Founding | 100 | 96.6 | 100.3 | 105.9 | 105.6 | 109.9 | 110.5 | 112.6 |
| Electrical Engineering | 100 | 117.0 | 124.6 | 125.4 | 130.1 | 133.3 | 141.2 | 150.3 |
| Marine Engineering | 100 | 100.6 | 93.4 | 88.6 | 87.2 | 85.8 | 91.1 | 93.6 |
| Steel Smelting & Iron Puddling Iron & Steel Rolling and Forging | 100 | 98.0 | 93.9 | 91.2 | 92.2 | 87.6 | 87.7 | 88.7 |
| Textiles: | | | | | | | | |
| Cotton | 100 | 100.9 | 101.0 | 101.3 | 100.4 | 99.0 | 99.1 | 100.8 |
| Woollen and Worsted | 100 | 100.6 | 93.4 | 88.6 | 87.2 | 85.8 | 91.1 | 93.6 |
| Linen | 100 | 101.7 | 105.8 | 109.5 | 104.1 | 102.0 | 100.0 | 102.4 |
| Jute | 100 | 100.6 | 103.0 | 101.5 | 97.3 | 100.4 | 100.0 | 104.6 |
| Textile Bleaching, Printing and Dyeing | 100 | 105.0 | 102.8 | 102.7 | 105.2 | 106.5 | 106.0 | 106.6 |
| Hosiery | 100 | 104.6 | 108.5 | 108.3 | 112.6 | 116.4 | 119.7 | 122.2 |
| Silk & Artificial Silk | 100 | 111.2 | 124.8 | 136.2 | 147.6 | 193.6 | 203.4 | 215.1 |
| Railway Service (Non-Permanent Workers) | 100 | 90.8 | 88.0 | 84.1 | 78.2 | 76.0 | 75.0 | 74.7 |
| Total of all Industries and Services | 100 | 101.6 | 103.5 | 104.8 | 105.6 | 106.5 | 108.4 | 111.2 |

From the Ministry of Labour Gazette, November, 1930

GREAT BRITAIN

* In 1926 most industries were adversely affected by the dispute in the coal-mining industry. At June 1926 comparatively few workpeople were at work in that industry, although the numbers recorded as unemployed were only 126,000, and the index number for all industries taken together at that date, therefore, excludes the coal-mining industry.

Note:

For 1928—1930 the available information relates only to persons aged 16—64. Although the figures annually collected for earlier years were in respect of persons aged 16 and over, information which was available as to the proportion of insured workers aged 65 years and over enabled estimates to be made of the total numbers aged 16—64 in 1926 and these estimates have been used to provide a basis for linking up the index numbers for 1923—1927 with those for later years on a comparable basis. As however figures are not available showing the number of persons aged 65 and over who retired from each industry on obtaining old age pensions in 1927, it should not be assumed that the index numbers given necessarily represent the changes in the total number of workers, insured and uninsured, attached to any industry. (Nevertheless, the differences arising from this consideration are negligible.)

TABLE III. (Continued).

| Year | Cost of Living Ministry of Labour | Nominal Wages ÷ Wholesale Prices ¹ | Nominal Wages ÷ Cost of Living | Cost of Living ÷ Wholesale Prices ² |
|------|--------------------------------------|--|-----------------------------------|---|
| | 1913=100 | 1913=100 | 1913=100 | 1913=100 |
| 1910 | 95.5 | 102 | 100 | 104 |
| 1911 | 95.5 | 102 | 100 | 102 |
| 1912 | 99 | 98 | 98 | 99 |
| 1913 | 100 | 100 | 100 | 100 |
| 1914 | 99 | 101 | 103 | 99 |
| 1915 | 122 | 89 | 90 | 96 |
| 1916 | 144 | 75 | 83 | 90 |
| 1917 | 174 | 68 | 81 | 84 |
| 1918 | 200 | 79 | 91 | 89 |
| 1919 | 215 | 91 | 109 | 89 |
| 1920 | 249 | 92 | 113 | 84 |
| 1921 | 226 | 142 | 124 | 124 |
| 1922 | 182 | 136 | 118 | 118 |
| 1923 | 173 | 122 | 112 | 114 |
| 1924 | 175 | 117 | 111 | 107 |
| 1925 | 175 | 123 | 112 | 109 |
| 1926 | 172 | 132 | 114 | 116 |
| 1927 | 167 | 139 | 117 | 116 |
| 1928 | 165 | 139 | 118 | 117 |
| 1929 | 164 | 142 | 118 | 121 |
| 1930 | 158 | 161 | 122 | 140 |

¹ i.e. By the Board of Trade Index No. of Wholesale Prices.² i.e. By the Statist Index No. of Wholesale Prices.

TABLE III. THE TREND OF PRODUCTION, UNEMPLOYMENT, NOMINAL WAGES, WHOLESALE PRICES,
AND THE COST OF LIVING IN GREAT BRITAIN 1910-1930

| Year | Production London & Cambridge Eco- nomic Service | Unemployment | | Nominal Wages ¹ | Wholesale Prices | |
|------|--|---------------------------|-----------------------------|----------------------------|-------------------|---------------------------|
| | | Trade Union Percentage | Ministry of Labour Perc. | | Board of Trade | Statist (A. Sauerbeck) |
| | 1913 = 100 | | | 1913 = 100 | 1913 = 100 | |
| 1910 | 90.3 | 4.7 | | 95 | 93 | 92 |
| 1911 | 94.2 | 3.0 | | 96 | 94 | 94 |
| 1912 | 96.4 | 3.2 | | 97 | 99 | 100 |
| 1913 | 100.0 | 2.1 | | 100 | 100 | 100 |
| 1914 | 96.0 | 3.3 | | 102 | 101 | 100 |
| 1915 | | 1.1 | | 110 | 123 | 127 |
| 1916 | | 0.4 | | 120 | 160 | 160 |
| 1917 | | 0.7 | | 141 | 209 | 206 |
| 1918 | 1924 = 100 | 0.8 | | 182 | 230 | 226 |
| 1919 | | 2.4 | | 235 | 259 | 242 |
| 1920 | 104.7 | 2.4 | | 282 | 307 | 295 |
| 1921 | 75.3 | 14.8 | 16.7 | 280 | 197 | 182 |
| 1922 | 89.3 | 15.2 | 14.1 | 216 | 159 | 154 |
| 1923 | 91.1 | 11.3 | 11.5 | 193 | 159 | 152 |
| 1924 | 100.0 | 8.1 | 10.2 | 195 | 166 | 164 |
| 1925 | 101.1 | 10.5 | 11.0 | 196 | 159 | 160 |
| 1926 | 90.2 | 12.2 | 12.4 | 196 | 148 | 148 |
| 1927 | 110.2 | | 9.7 | 196 | 141 | 144 |
| 1928 | 108.5 | | 10.9 | 194 | 140 | 141 |
| 1929 | 116.2 | | 10.4 | 193 | 136 | 135 |
| 1930 | 107.3 | | 16.0 | 192 | 119 | 113 |

¹ Board of Trade 1910-14. Prof. Bowley 1914-19. London & Cambridge Economic Service 1919-30.

TABLE IV. EMPLOYMENT IN INDIVIDUAL INDUSTRIES IN GREAT BRITAIN 1910-1930.

| Year | Coal-Mining | Railway Service | Shipping | Iron and Steel | |
|-----------|------------------------|-----------------|-----------------------------|----------------|-----------------|
| 1910 | 1.040 | 609 | | | |
| 1911 | 1.058 | not available | 247 | | |
| 1912 | 1.080 | not available | 252 | | not available |
| 1913 | 1.118 | 643 | 256 | | |
| 1914 | 1.124 | | 261 | July | 311 |
| | | | | Dec. | 280 |
| 1915 | 954 | | | July | 297 |
| | | | | Dec. | 304 |
| 1916 | 998 | | not available | July | 315 |
| 1917 | 1.021 | not available | | Jan. | 335 |
| | | | | July | 343 |
| 1918 | 1.009 | | | Jan. | 355 |
| | | | | July | 366 |
| 1919 | 1.191 | | 234 | Jan. | 373 |
| | | | | July | 393 |
| | | | | Oct. | 382 |
| 1920 | 1.248 | | 245 | | 209 |
| 1921 | 1.144 | (March) 736 | 242 | March | 121 |
| | | | | Dec. | 92 |
| 1922 | 1.163 | • 677 | 237 | | 114 |
| 1923 | 1.220 | • 682 | 235 | | 143 |
| 1924 | 1.230 | • 701 | 234 | | 146 |
| 1925 | 1.118 | • 702 | 237 } 231 } ¹ | | 132 |
| 1926 | Mar. 1.128 Dec. 935 | • 689 | 230 | 1st Qr. | 20 |
| | | | | 2nd " | 20 |
| | | | | 3rd " | 10 ¹ |
| 1927 | 1.037 | (April) 683 | 231 | | 129 |
| 1928 | 952 | (March) 677 | 235 | | 122 |
| 1929 | 970 | • 642 | 236 | | 124 |
| 1930 | 917 | • 657 | | | |
| Thousands | | | | | |

Coal Mining:

From 1910 to 1924 the figures have been taken from the Evidence to Royal Commission on the Coal Industry (1925), Appendix No. 8.

From 1925 to 1929 the figures have been taken from the Ninth Annual Report of the Secretary for Mines (1929).

The figure for 1930 is the average of the weekly figures published in the Board of Trade Journal for January 8th, 1931.

Railway Service:

The figures until 1925 have been taken from the Abstracts of Labour Statistics and for subsequent years from the Ministry of Labour Gazette.

Shipping:

The figures are taken from the 74th Statistical Abstract of the United Kingdom. The figure for 1910 is not comparable with those for subsequent years.

¹ The figures for employment in shipping exclude from 1925 onwards those employed on ships of under 100 tons. For purposes of comparison the two figures are given for 1925, the one including and the other excluding such persons.

Iron and Steel:

The figures include pig iron, steel ingots and castings, etc. They exclude the wrought iron, tinplate, and galvanized sheet workers. They apply to labour employed at glass furnaces, steel furnaces, rolling mills, etc.

Information as to numbers employed in 1929 was supplied by manufacturers responsible for 95 % of the total production. For years previous to 1929 the scope of the statistics is equally or almost equally comprehensive. The figures for 1914 to 1919 have been supplied by the Board of Trade and these include workers in glass furnaces, steel manufacture, iron founding, heavy forges, and tinplate and galvanized sheet manufacture. There is, therefore, a break of comparability between the years 1919 and 1920; the subsequent years are not comparable with the former years.

The figures have been extracted from the Statistical Bulletin of the National Federation of Iron and Steel Manufacturers: January Monthly Bulletin 1920 for statistics 1914 to 1919 and Annual Bulletins for statistics 1920 to 1929.

Railway Service.

The figures have been compiled from the Railway Companies (Staff) Annual Returns, prepared by the Ministry of Transport. The details given in the Returns include the total number of persons employed by the railway companies in a specified week of March (usually the first). The numbers include all persons in the service of the companies in the specified week except staff not directly employed by the companies (e.g. staff employed by contractors). The figures comprise the numbers of staff receiving salaries or wages for the full week combined with the equivalent number of full time workers in cases where employees were paid for less than the complete week. For each of the years the figure excludes railway employees of the Manchester Ship Canal Co., who numbered 1438 in March, 1929. In 1927 the particulars were made to relate to the week ending 30th April in order to avoid the abnormal conditions which prevailed during the period of suspension of the guaranteed week.

² Coal Stoppage.

The figures for each of the industries refer to the numbers actually employed i.e. to the numbers on the payrolls or wage books and not to the numbers seeking employment in the industry.

TABLE V. PRODUCTION OF COAL, IRON ORE, PIG IRON, AND STEEL IN GREAT BRITAIN 1910-1930

| Year | Coal Mill. tons | Iron Ore Mill. tons | Pig Iron Mill. tons | Steel Mill. tons |
|------|--------------------|------------------------|------------------------|---------------------|
| | 1 | 2 | 3 | 4 |
| 1910 | 264.4 | 15.2 | 10.0 | 6.4 |
| 1911 | 271.9 | 15.5 | 9.5 | 6.5 |
| 1912 | 260.4 | 13.8 | 8.8 | 6.8 |
| 1913 | 287.4 | 16.0 | 10.3 | 7.7 |
| 1914 | 265.7 | 14.9 | 8.9 | 7.8 |
| 1915 | 253.2 | 14.2 | 8.8 | 8.6 |
| 1916 | 256.4 | 13.5 | 9.0 | 9.0 |
| 1917 | 248.5 | 14.8 | 9.3 | 9.7 |
| 1918 | 227.7 | 14.6 | 9.1 | 9.5 |
| 1919 | 229.8 | 12.3 | 7.4 | 7.9 |
| 1920 | 229.5 | 12.7 | 8.0 | 9.1 |
| 1921 | 163.3 | 3.5 | 2.6 | 3.7 |
| 1922 | 249.6 ¹ | 6.9 | 4.9 | 5.9 |
| 1923 | 276.0 | 10.9 | 7.4 | 8.5 |
| 1924 | 267.1 | 11.1 | 7.3 | 8.2 |
| 1925 | 243.2 | 10.1 | 6.3 | 7.4 |
| 1926 | 126.3 | 4.1 | 2.5 | 3.6 |
| 1927 | 251.2 | 11.2 | 7.3 | 9.1 |
| 1928 | 237.5 | 11.3 | 6.6 | 8.5 |
| 1929 | 257.9 | 13.2 | 7.6 | 9.6 |
| 1930 | 247.0 ² | | 6.2 | 7.3 |

¹ Including Ireland up to 1921

² Sum of fifty two weeks' output. Board of Trade Journal, Jan. 8th, 1931, from week ending Jan. 4th, 1930 to week ending Dec. 27th, 1930

National Federation of Iron & Steel Manufacturers Statistics of the Indent Iron and Steel Industries (1930) (Columns 1, 3, & 4)

9th Annual Report of the Secretary for Mines (1929) (Column 2)

SYNOPSIS D'UN RAPPORT SUR LES FLUCTUATIONS
DU CHOMAGE EN GRANDE-BRETAGNE, PAR M. LE DR.
F. C. BENHAM, ÉCOLE D'ÉCONOMIE POLITIQUE ET DE SCIENCES
POLITIQUES DE LONDRES.

PREMIÈRE PARTIE: HISTORIQUE DU CHOMAGE.

Il est possible de répartir en cinq périodes distinctes, les années comprises entre 1910 et 1930:

- (1) Période antérieure à la guerre 1910-1914.
- (2) „ de guerre, 1914-1918.
- (3) „ immédiatement consécutive à la guerre 1919-1924.
- (4) „ s'étendant de 1925 à 1929.
- (5) Année 1930.

(1) De 1910 à 1913, chômage en voie de diminution et prospérité générale croissante, hausse des prix de gros et augmentation de la production. Développement des exportations britanniques.

(2) La période de guerre constitue une exception; le chômage tombe à des proportions négligeables et les prix atteignent des hauteurs vertigineuses.

(3) La déflation commence à fin 1919 et les prix se mettent à tomber au cours de l'été 1920. 1921 enregistre une dépression grave et un chômage intensif. Un déséquilibre qui ne se manifestait pas avant la guerre, se produit entre les frais de revient et les prix. L'activité d'emploi reprend pendant l'été de 1922 et ce rétablissement continue jusqu' à fin 1924.

(4) La période 1925-1929 révèle une disparité marquée entre les niveaux d'emploi existant avant et après la guerre. De 1921 à 1930, le pourcentage annuel de chômeurs bénéficiant de l'assurance, a été en moyenne de 12½, sans jamais tomber au dessous le 8,7 (mai 1927) pour un mois quelconque de cette période.

En chiffres absolus, ces proportions signifient que le nombre

SYNOPSIS

de chômeurs n'est jamais tombé au dessous de 1.000.000, tandis qu'il s'est élevé jusqu'à 2½ millions (fin 1930).

(5) L'année 1930 est une année d'effondrement économique grave s'étendant au monde entier. Toutefois, par rapport à la situation des années précédentes, la Grande Bretagne n'a pas souffert autant que certains autres pays, tels que l'Allemagne et l'Australie. Les prix de gros tombent, la production diminue et le chômage augmente.

DEUXIÈME PARTIE: RÉPARTITION DU CHOMAGE.

- (1) Par industries;
- (2) Par régions;
- (3) Par sexe et âge des ouvriers;
- (4) Par durée d'emploi des ouvriers.

(1) Ce sont les industries lourdes qui ont accusé la plus forte proportion de chômage, car elles dépendent en grande mesure des exportations. Elles se sont contractées, mais cependant de manière insuffisante pour égaliser le chômage parmi les diverses industries. Les industries les plus récentes, qui se trouvent en voie d'expansion, ne sont pas parvenues à réduire le pourcentage du chômage, bien qu'elles aient absorbé l'augmentation survenu dans les disponibilités de la main d'oeuvre.

(2) Le chômage sévit surtout dans le nord de l'Angleterre, le sud du Pays de Galles et l'Ecosse; par contre, le sud de l'Angleterre et le district industriel du centre sont les régions qui ont le moins souffert.

(3) Les statistiques montrent qu'en Grande Bretagne le chômage affecte surtout les ouvriers du sexe masculin.

(4) S'il est exact que dans la campagne de grande amplitude menée contre la caisse d'assurances pour le chômage, l'on ait invoqué des allégations dépourvues de fondement, il existe néanmoins un "noyau solide" de chômage. Ce noyau se

SYNOPSIS

recrute principalement parmi les ouvriers les plus âgés attirés vers des industries qui se sont contractées dans certaines régions souffrant de la crise, mais il est aussi constitué en partie par des ouvriers dépourvus des qualifications normales qui leur permettraient de trouver de l'emploi.

TROISIÈME PARTIE : CAUSES DU CHOMAGE.

Les facteurs "normaux" de chômage avant la guerre, existent toujours à savoir, le manque de renseignements quant aux possibilités d'obtenir du travail et une mobilité insuffisante des ouvriers à la recherche d'une occupation; ces facteurs empêchent une concordance exacte de s'établir entre la demande et l'offre de la main d'oeuvre. De même se manifestent toujours les oscillations saisonnières et l'"inemployabilité" de certains sujets. Sur le chiffre du chômage existant en 1930, ces diverses causes sont responsables d'une fraction de 5 % environ. L'on peut compter que la crise de 1930 elle-même explique, pour sa part, une autre fraction de 5 % et enfin il est possible d'attribuer une troisième fraction de 6 à 7 % aux circonstances qui caractérisent, en propre, les années consécutives à la guerre.

Nous examinerons ici:

- (1) "L'inemployabilité".
- (2) Les oscillations saisonnières.
- (3) Le manque de renseignements. La mobilité imparfaite et l'incoordination des méthodes appliquées à l'embauche de la main d'oeuvre.
- (4) Les cycles économiques.
- (5) La rationalisation.
- (6) Les difficultés spéciales consécutives à la guerre.
- (7) La rigidité du niveau des salaires et des autres conditions de travail.

SYNOPSIS

- (1) Il appert que le nombre de sujets "inemployables" peut être considéré comme négligeable, tant avant qu'après la guerre.
- (2) L'on n'a pas réussi à établir un "raccordement" parfait des emplois permettant de faire face aux oscillations saisonnières.
- (3) Une mobilité imparfaite et le manque de coordination des méthodes d'embauche ont déterminé une certaine proportion de chômage dans tout le cours de la période 1910-1930.
- (4) Les deux crises sérieuses de 1921-22 et de 1930 doivent être considérées à part. La première a été la conséquence prévue de la période d'emballement et d'inflation précédente, et a été due en partie à la nécessité d'adapter à une situation du temps de paix devenue différente, l'organisme économique qui avait été faussé par la guerre. La seconde a suivi une période où les prix avaient baissé lentement et a succédé à une décade de reconstitution économique et d'adaptation partielle à la situation existant après la guerre.
- (5) En Grande-Bretagne se manifestent peu de symptômes d'une rationalisation considérée comme une substitution de capitaux à la main d'oeuvre. La production a augmenté plus rapidement que la population entre 1924 et 1929. Mais ce phénomène s'explique par la rationalisation entendue dans le sens du perfectionnement des méthodes et de l'organisation plutôt que d'une augmentation dans la proportion des capitaux définitivement immobilisés.
- (6) Le retour à l'étalon d'or décidé en 1925 a eu des résultats fâcheux. Les emplois ont diminué car les salaires sont restés "indécrochables" tandis que les prix en sterling des exportations britanniques baissaient. En outre, par suite du caractère particulier de son commerce d'exportation, la Grande Bretagne s'est montrée particulièrement vulnérable soit à la tendance manifestée par certains de ses clients qui se sont mis à suffire à leurs propres besoins, soit aux effets de la

SYNOPSIS

chute brutale survenue récemment dans les prix des matières premières et des denrées alimentaires.

(7) L'on attribue à la rigidité comparative des tarifs des salaires, le niveau considérablement plus élevé du chômage après la guerre, par contraste avec le chômage existant avant cette époque et avec celui qui règne dans d'autres pays. Ce régime des salaires s'est maintenu, avec son manque de flexibilité, pendant toute la durée de la période consécutive à la guerre.

Avant la guerre, il existait une concordance étroite entre le mouvement du chômage et celui du "quotient" des salaires divisés par les prix de gros; l'un et l'autre étaient légèrement en baisse. Cette concordance a continué après la guerre, le chômage aussi bien que le "quotient" des salaires par les prix de gros s'étant maintenus notablement au-dessus du niveau antérieur à la guerre.

La grande rigidité des tarifs de salaires depuis 1918 reconnaît comme cause immédiate la politique suivie par les syndicats ouvriers, politique que le système d'assurances nationales contre le chômage a renforcée.

SYNOPSIS DES BERICHTES ÜBER SCHWANKUNGEN IN
DER ARBEITSLOSIGKEIT IN GROSSBRITANNIEN,
DURCH Dr. F. C. BENHAM, LONDON SCHOOL OF ECONOMICS
AND POLITICAL SCIENCE.

TEIL I. DER LAUF DER ARBEITSLOSIGKEIT.

Die Jahre 1910-1930 können in 5 Perioden eingeteilt werden:

- (1) Die Vorkriegsperiode 1910-1914.
- (2) Die Kriegsperiode 1914-1918.
- (3) Die unmittelbare Nachkriegsperiode 1919-1924.
- (4) Die Periode 1925-1929.
- (5) Das Jahr 1930.

(1) Arbeitslosigkeit verminderte sich von 1910-1913, während der Wohlstand wuchs. Grosshandelspreise stiegen und Produktion vergrösserte sich. Britische Exporte breiteten sich aus.

(2) Die Kriegsperiode war aussergewöhnlich. Arbeitslosigkeit nahm bis zu einem unbeachtlichen Masse ab und Preise stiegen erschreckend.

(3) Ende 1919 begann Deflation, und in Sommer 1920 begannen die Preise zu fallen. 1921 war eine ernste Depression und heftige Arbeitslosigkeit. Eine Disharmonie entstand zwischen Kosten und Preisen, wie sie vor dem Kriege nicht in Erscheinung getreten war. Beschäftigung lebte im Sommer 1922 wieder auf, und dieses Wiederaufleben setzte sich fort bis Ende 1924.

(4) Die Periode 1925-1929 offenbarte die ausgesprochene Ungleichheit zwischen dem Stande der Arbeitslosigkeit vor und nach dem Kriege. Von 1921-1930 betrug der jährliche Durchschnitt versicherter Arbeitslosen über 12½ %. Er ist in keinem einzigen Monat unter 8,7 % (im Mai 1927) gefallen. In absoluten Zahlen bedeutet dies, dass die Zahl der Arbeitslosen niemals unter 1 Million gefallen ist, während sie auf mehr als 2½ Million (Ende 1930) gestiegen ist.

SYNOPSIS

(5) 1930 war ein Jahr einer ernsten, in ihrem Charakter weltweiten Krise. Indessen litt unter ihr Grossbritannien relativ zu vorhergehenden Jahren nicht so sehr als einige andere Länder, wie z.B. Deutschland und Australien. Grosshandelspreise fielen, Produktion nahm ab und Arbeitslosigkeit wuchs.

TEIL II. DIE VERTEILUNG DER ARBEITSLOSIGKEIT.

(1) Unter Industrien.

(2) Unter Gebieten.

(3) Unter Personen nach Geschlecht und Alter.

(4) Unter Personen nach Dauer der Arbeitslosigkeit.

(1) Die "Schwerindustrien", welche stark von Exporten abhängen, sind für einen grösseren Teil der Arbeitslosigkeit verantwortlich gewesen. Sie schrumpften allmählich zusammen, aber ohne dass ein Ausgleich der Arbeitslosigkeit unter Industrien stattfand. Die neu sich ausdehnenden Industrien sind unfähig gewesen, den Durchschnittssatz der Arbeitslosigkeit zu verringern, obwohl sie das vermehrte Angebot an Arbeitskräften absorbierten.

(2) Arbeitslosigkeit ist hauptsächlich im Norden von England, in Süd-Wales und Schottland konzentriert. Der Süden und die „Midlands“ haben am wenigsten gelitten.

(3) Nach der Statistik ist Arbeitslosigkeit in Grossbritannien ein Problem, welches sich hauptsächlich auf Männer bezieht.

(4) Obwohl die Behauptungen eines weit verbreiteten Missbrauches der Gelder der Arbeitslosenversicherung grundlos sind, ist ein "festes Kerngehäuse" von Arbeitslosigkeit da, welches sich hauptsächlich aus den älteren Leuten zusammensetzt, die an zusammenschrumpfende Industrien in Depressionsgebieten gebunden sind, und teilweise aus Leuten, denen eine normale Wählbarkeit für Beschäftigung fehlt.

SYNOPSIS

TEIL III. DIE URSACHEN DER ARBEITSLOSIGKEIT.

Die "normalen" Vorkriegskräfte, d.h. Mangel an Kenntnis und unvollkommene Beweglichkeit, welche genaue Korrespondenz zwischen Angebot und Nachfrage für Arbeit verhindern, bestehen noch, zusammen mit Saisonschwankungen und "Unbrauchbarkeit". Diese waren 1930 etwa für 5 % der Arbeitslosigkeit verantwortlich. Wenn wir für die Krise von 1930 diesen Prozentsatz annehmen, dann können 6-7 % Bedingungen zugewiesen werden, welche für Nachkriegsjahre eigentümlich sind.

Betrachtet sind:

- (1) "Unbrauchbarkeit"
- (2) Saisonschwankungen.
- (3) Mangel an Kenntnis. Unvollkommene Beweglichkeit. Ungeordnete Methoden der Einstellung von Arbeitern.
- (4) Kreislaufbewegungen.
- (5) Rationalisierung.
- (6) Besondere Nachkriegsschwierigkeiten.
- (7) Starrheit der Löhne und andere Arbeitsbedingungen.

(1) Die Zahl unbrauchbarer Personen vor und nach dem Kriege ist für unbeachtlich erklärt.

(2) Vollständiger Ausgleich der Beschäftigung ist nicht erreicht worden.

(3) Unvollkommene Beweglichkeit und ungeordnete Methoden der Einstellung haben einige Arbeitslosigkeit während der Periode 1910-1930 verursacht.

(4) Die beiden ernsthaften Krisen von 1921-22 und 1930 sind unterschieden. Die erstere war die Folge der vorangegangenen Inflationskonjunktur und teilweise durch die Notwendigkeit verursacht, die durch den Krieg zerrüttete Wirtschaftsstruktur den veränderten Bedingungen der Friedenszeit anzupassen.

SYNOPSIS

Die letztere folgte einer Periode langsamen Preisfalles und kam nach einer Dekade des Wiederaufbaues und der teilweisen Anpassung an Nachkriegsbedingungen.

(5) In Grossbritannien ist Rationalisierung im Sinne von Ersatz der Arbeitskraft durch Kapital wenig zu Tage getreten. Produktion wuchs schneller als die Bevölkerung zwischen 1924 und 1929; aber dies ist mehr durch Verbesserungen in Methoden und Organisation zu erklären als durch ein verhältnismässiges Wachstum der Verwendung festen Kapitals.

(6) Die Rückkehr zum Goldstandard 1925 war in ihren Ergebnissen unglücklich. Beschäftigung fiel, da die Löhne "klebrig" blieben, obwohl die Sterling-Preise britischer Exporte abnahmen. Ueberdies hat die Natur seines Exportes Grossbritannien besonders verwundbar gegen die Bewegung zur Selbstgenügsamkeit gemacht, welche unter einigen seiner Kunden entstand, und gegen die Auswirkungen des jüngsten, drastischen Preisfalles von Rohstoffen und Nahrungsmitteln.

(7) Der wesentlich höhere Stand der Nachkriegsarbeitslosigkeit im Gegensatz zur Vorkriegsarbeitslosigkeit und zur Arbeitslosigkeit in anderen Ländern wird der verhältnismässigen Starrheit der Lohnsätze zugesprochen. Diese Starrheit der Lohnstruktur herrschte während der ganzen Nachkriegsperiode. Es gab vor dem Kriege eine feste Korrespondenz zwischen Arbeitslosigkeit und dem "Quotienten" der durch die Grosshandelspreise dividierten Löhne. Beide fielen kaum. In der Nachkriegsperiode setzte sich diese Korrespondenz fort. Arbeitslosigkeit zusammen mit dem "Quotienten" der durch die Grosshandelspreise dividierten Löhne sind bezeichnenderweise über dem Vorkriegsstande gewesen.

Die grössere Starrheit der Lohnsätze seit dem Kriege ist in erster Linie durch die Gewerkschaftspolitik verursacht. Diese Politik ist verstärkt durch die nationale Arbeitslosenversicherung.

EMPLOYMENT AND INCOME OF LABOR IN THE
 UNITED STATES, BY W. A. BERRIDGE, PH.D.,¹ ECONOMIST
 OF THE METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK.

| | Page |
|---|------|
| SYNOPSIS | 280 |
| INTRODUCTION | 283 |
| SKETCH OF THE GROWTH IN FACTORY EMPLOYMENT DURING THE PRESENT CENTURY | 284 |
| FACTORY AND RAILROAD PAYROLLS SINCE THE WAR, BY YEARS | 285 |
| FACTORY WORKERS' EMPLOYMENT AND INCOME, BY MONTHS .. | 286 |
| FACTORY LABOR TURNOVER IN THE UNITED STATES | 293 |
| EMPLOYMENT AND COMPENSATION OF RAILROAD OPERA- TIVES SINCE 1922, BY MONTHS | 295 |
| OTHER NON-FACTORY EMPLOYMENTS | 297 |
| SPECIAL DATA ON SEVEN "WHITE-COLLAR" EMPLOYMENTS .. | 302 |
| MONEY INCOME VERSUS PURCHASING POWER | 303 |
| MANUFACTURE OF TEXTILES AND TEXTILE PRODUCTS | 305 |
| MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS .. | 307 |
| MANUFACTURE OF MACHINERY AND RELATED EQUIPMENT .. | 308 |
| TABLES I—VI | 311 |
| SUPPLEMENTARY NOTE ON THE UNEMPLOYMENT CEN- SUSES, AND THE GENERAL PROBLEM OF UNEMPLOYMENT VOLUME, IN THE UNITED STATES | 318 |
| SYNOPSIS (texte français) | 320 |
| „ (deutscher Text) | 323 |

¹ Acknowledging the assistance of Mr. Cedric Wolfe and other members of my staff.

SYNOPSIS

Reliable and all-inclusive data are not available on the total employment and total income of the approximately 49,000,000 persons now attached to gainful occupations in the United States. Long-time comparisons in this paper are therefore confined to factory employees and railroad personnel, of whom the former constitute numerically the largest single group of workers in the country; but short-time comparisons are cited for certain groups on which sample data are available in recent years.

SKETCH OF THE GROWTH IN FACTORY EMPLOYMENT DURING THE PRESENT CENTURY.

Index numbers based on payroll data drawn from the United States Censuses of Manufactures are cited here to show how the number of factory employees almost doubled from 1899 to 1929, the greater share of the growth taking place during the earlier portion of this thirty-year period.

FACTORY AND RAILROAD PAYROLLS SINCE THE WAR, BY YEARS.

Data for the period 1919-1930 are presented by years for the aggregate income of factory and railroad employees, that of the first mentioned being divided into wages and salaries.

FACTORY WORKERS' EMPLOYMENT AND INCOME, BY MONTHS.

Monthly index numbers of actual post-war employment and money income of factory workers in the United States have been computed by the Federal Reserve Board, and are used in this paper because of their superiority in statistical soundness over the computations of other compilers. These indexes are also presented with seasonal variation eliminated, to trace with greater clarity the course of cyclical changes in factory employment. In addition, some attention is devoted to the purely seasonal characteristics of aggregate employment and income of factory workers.

SYNOPSIS

FACTORY LABOR TURNOVER IN THE UNITED STATES.

Factory labor-turnover indexes are found to throw additional light on internal conditions within the post-war labor market: the hiring of labor and the several types of separation from payroll - voluntary quits, layoffs, and discharges.

EMPLOYMENT AND COMPENSATION OF RAILROAD OPERATIVES SINCE 1922, BY MONTHS.

The Interstate Commerce Commission's tabulations of the payroll data of Class I Steam Railroads are presented in index-number form, by months, to indicate the effects of cyclical and technological factors on this type of employment, as well as to disclose its seasonal characteristics.

OTHER NON-FACTORY EMPLOYMENTS.

Collection of national data on other non-factory employments in the United States is only of very recent origin. Monthly index-numbers computed by the United States Bureau of Labor Statistics for a number of such lines are discussed in this paper for the period January 1929 to date, giving some evidence on the behaviour of such employments in the current depression at least. These indexes cover trade, hotels, public utilities and the various mining industries, among other lines of activity.

SPECIAL DATA ON SEVEN "WHITE-COLLAR" EMPLOYMENTS.

In the main, there are presented here the data obtained by the Metropolitan Life Insurance Company on employment and payrolls among a selected number of "white-collar" lines, such as banks, insurance companies, hospitals and advertising agencies. With the exception of these figures, very little positive data on such employments have been collected in the United States.

MONEY INCOME VERSUS PURCHASING POWER.

Aggregate monthly money income of factory workers has

SYNOPSIS

been deflated for changes in the "retail" cost of living in order to trace the course of fluctuations in "real" income (or commodity purchasing power) received by this class of employees since the war.

MANUFACTURE OF TEXTILES AND TEXTILE PRODUCTS.

MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS.

MANUFACTURE OF MACHINERY AND RELATED EQUIPMENT.

Certain characteristics of the behaviour of employment and payroll disbursements in these industries are described.

EMPLOYMENT AND INCOME OF LABOR IN THE UNITED STATES, 1910—1931.

INTRODUCTION.

At the outset, it is desirable to indicate those delimitations in the scope of this paper necessitated in some cases by lack of data and in other cases by shortcomings in the data that are available. It is impossible to cite, to good purpose, the total employment or the total income of labor in the United States, year by year from 1910 to 1931. True, we know that the total number of persons attached to gainful occupations is estimated to be approximately 49,000,000 in the early part of 1930, when the decennial Census of Population, Occupations, etc., was taken; but these figures are not yet available in final form, nor in classifications and sub-classifications that would permit of effective use in comparison with earlier decennial figures for 1920 and 1910. Moreover, no all-inclusive income data are collected in this country even at decennial intervals; various private investigators have attempted to estimate aggregate employment or labor income (or both), but in our judgment these estimates are subject to so much hazard that we prefer to limit ourselves primarily to factory and railroad workers, the two economic groups for which the best employment and income figures are available over an extended period. The 1930 Census of Distribution will presently provide both employment and income figures for not only retail and wholesale trade but also for building construction; however, no usable results have appeared at this writing.

In addition to the two major groups above emphasized, certain other classes of employment are now represented by fairly satisfactory sample index numbers - through the initiative of the United States Bureau of Labor Statistics; these figures are very helpful for reviewing, later in this paper, monthly movements in the last two or three years of the longer period which is being studied by the International Industrial Relations Association. They do not of course afford any light on the general trends throughout the period.

A similar delimitation is necessary in the case of unemploy-

EMPLOYMENT AND INCOME OF LABOR

ment data. Neither the censuses of unemployment taken in 1930 and certain scattered earlier years, nor monthly indices compiled by the American Federation of Labor, are of significant value in reviewing the two decades as a whole, because of incomparable practices in definition, compilation, etc. and for various other technical reasons.

SKETCH OF THE GROWTH IN FACTORY EMPLOYMENT DURING THE PRESENT CENTURY.

By way of orienting ourselves before proceeding to the more intensive treatment of monthly fluctuations later in this paper, it is desirable to take a birds-eye view of the growth, from 1899 through 1929, of employment of that type which has finally come to surpass agriculture as a source of livelihood for American labor - in other words, employment in manufacturing industries. According to the final figures which have lately become available from the 1929 Census of Manufactures, the total number employed in that year averaged more than 10,000,000 persons and aggregate earnings totalled over \$15,000,000,000.

Wage earners numbered 8,807,536 out of the 10,185,296 persons, the remainder being salaried personnel. Of the \$15,229,161,429 received by the entire group, wages alone amounted to \$11,649,536,855. Since the year 1929 was for the most part a period of greater than normal activity in industry generally, the figures cited above overstate somewhat the average or normal importance of the factory working group. When good, bad, and medium years are all considered together, it is found that in the last three or four years factory employees averaged nearly 10,000,000 in number, of whom more than 8,000,000 are wage earners: the entire group earned an average volume of \$14,000,000,000 in salaries and wages, of which nearly \$11,000,000,000 is in wages alone. Partly because farm population and the number of farmers has pretty generally been declining almost every year since the war, manufacture now takes first rank as a source of employment.

Considering its rate of growth, as shown by the census data, we may say that the number of factory employees in 1929 was

UNITED STATES

approximately double that for thirty years before. If we take the year 1899 as par, or 100 percent, the number of factory workers stood at 118 at the next quinquennial census date, 1904, and by 1909 had attained 145. After some further recovery from the depression of 1908 the curve slumped in 1914, but no lower than to an index figure of 156, which was over one-half again as large as the number of employees fifteen years before. After the great "bulge" during war time, the index stood at 204 in 1919.

Since the war, federal censuses of manufactures have been taken every two years instead of every five; they show that during the depression of 1921 the number of factory workers averaged 158 percent of its status in 1899, but during the busy year 1923 employment averaged 196. Since 1923, employment has stood as follows: in 1925 at 188, in 1927 at very nearly the same figure, and in 1929 at nearly 199, or virtually double the 1899 level. Judging by certain monthly samples hereinafter reviewed at greater length, the subsequent depression brought the annual average down, in 1930, to a point about 175 percent (preliminary) of the 1899 base. The situation month by month is considered in a later section of this Review.

It may be observed from this brief sketch that factory employment tended to gain more rapidly, both in absolute numbers and in the relative rate of speed, during the earlier portion than during the later portion of this thirty-year period - despite the widely acknowledged shortening of the working week in American industry. Broadly speaking, the general trend has been little more than horizontal since the war, for factory employment.

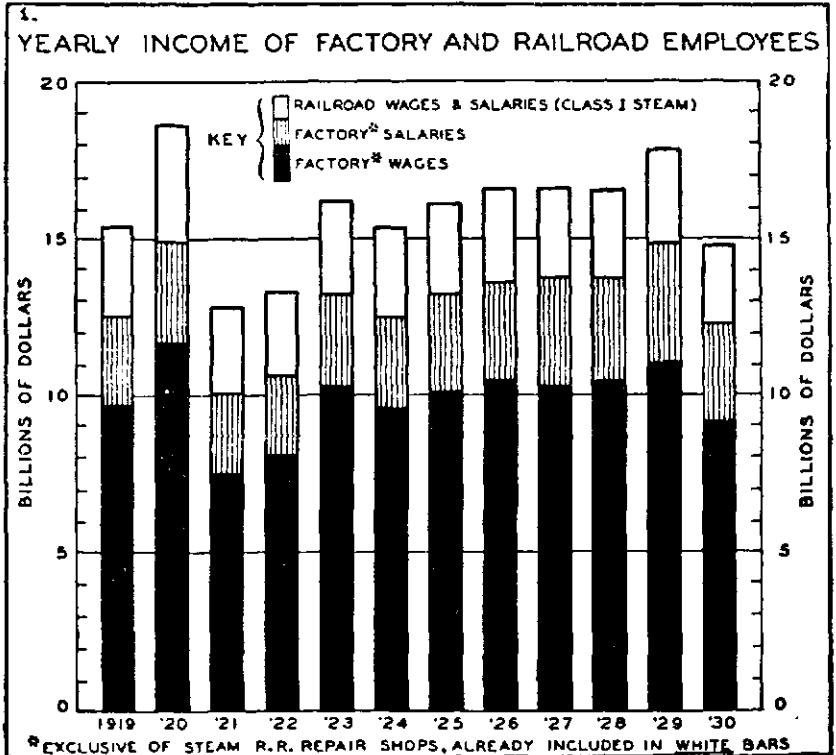
FACTORY AND RAILROAD PAYROLLS SINCE THE WAR, BY YEARS.

The corresponding post-war course for total annual payrolls, both in the factories and on the railroads, is graphically summarized in Chart 1. The topmost bars represent combined wages and salaries paid by Class 1 railroads, derived from the Interstate Commerce Commission's tabulations. For factories,¹

¹ After eliminating the duplication of steam railroad repair shops; this amounted to over \$600,000,000 in 1929.

EMPLOYMENT AND INCOME OF LABOR

the wage and the salary constituents are shown separately; in the inter-censal years, we have estimated as well as possible from monthly samples, suitably adjusted to the biennial censuses. All in all, we consider the results shown by this chart a fairly dependable picture of yearly movements in the aggregate money income of these two groups - the only ones for which comparably adequate records can be had for any considerable



period of years. Findings in regard to the post-war movements in these variables will be self-evident from scrutiny of Chart 1. The figures are given in the following table.¹

FACTORY WORKERS' EMPLOYMENT AND INCOME, BY MONTHS. Since manufactures constitute such a dominant source of employment to labor in the United States, it is of particular value

¹ See page 10.

UNITED STATES

to be able to present a chart of month-to-month fluctuations in factory employment (number on payroll) and volume of income (money amount of manufacturers' payrolls) for the post-war period. One good reason for presenting such a monthly picture is that annual data obliterate seasonal fluctuations, and these are quite prominent in manufacturing. In addition, monthly data reveal better the true extent of cyclical changes, and permit marking off with a greater degree of precision the

YEARLY INCOME OF FACTORY AND RAILROAD EMPLOYEES

| (Millions of Dollars) | | | |
|-----------------------|------------------------|-----------------------|-------------------------|
| | Factories ¹ | | Class 1 Steam Railroads |
| | Wages | Salaries ² | Wages plus Salaries |
| 1919 | 9,749 | 2,797 | 2,880 |
| 1920 | 11,688 | 3,166 | 3,730 |
| 1921 | 7,545 | 2,473 | 2,801 |
| 1922 | 8,082 | 2,543 | 2,669 |
| 1923 | 10,276 | 2,911 | 3,043 |
| 1924 | 9,552 | 2,914 | 2,868 |
| 1925 | 10,114 | 3,059 | 2,900 |
| 1926 | 10,459 | 3,118 | 2,990 |
| 1927 | 10,255 | 3,374 | 2,953 |
| 1928 | 10,400 | 3,422 | 2,862 |
| 1929 | 11,099 | 3,771 | 2,940 |
| 1930 | 9,072 | 3,263 | 2,590 |

¹ After eliminating the duplication of steam railroad repair shops; this amounted to over \$ 600,000,000 in 1929.
² Includes allowances for salaries of central-administrative-office employees.

approximate date when peak or trough occurred. Such evidence as is available suggests that manufacturing employment experiences wider cyclical fluctuations than do most other lines.

Index numbers of both factory workers' employment and money income, by months, appear in Charts 2 and 3. Chart 2 shows the actual fluctuations of these two variables in terms of their 1923-1925 monthly average as 100 percent. These indices are computed by the Federal Reserve Board from sample data collected in the main (for more recent years) by the United States Bureau of Labor Statistics.¹ Chart 3 shows the same two

¹ Reported to the Bureau by manufacturers. Covers one pay period

EMPLOYMENT AND INCOME OF LABOR

after we have eliminated seasonal variation. For measuring relative levels over a period of years, these index numbers are highly reliable, because they have been adjusted to the very complete data of the biennial censuses of manufactures. This cannot be said for the more widely quoted "link-chain" index numbers of the United States Bureau of Labor Statistics which has been demonstrated on several occasions to be subject to a very serious bias. For total factory employment and for most individual manufacturing industries, the bias (which for technical reasons is inherent in the sample data and has not been eliminated by periodic adjustment to the Censuses) has accumulated in a downward direction, and has led to very misleading conclusions in many quarters as to the true course of factory employment in the United States over a period of years.

Although the data of the United States Bureau of Labor Statistics record the changes in factory employment between one month and the next with a substantial degree of accuracy in most cases, we have discarded these figures in favor of the indices of the Federal Reserve Board, since without a true portrayal of long-time changes in employment a study of this kind would of course prove abortive. The Board's indices, originally constructed several years ago (in 1923), have since been adjusted to successive Censuses by the Reserve Board's Division of Research and Statistics, through the Census of 1927.¹

As defined by the Federal Reserve Board, there are 54 individual manufacturing industries represented currently in the general indices of factory employment and payrolls. These are combined into 14 major industrial groups and give representation to industries employing (in 1927) about four-fifths of all factory wage earners in the United States. The sample varies among individual manufacturing industries as to its inclusiveness, ranging from 10 percent to over 70 percent, according

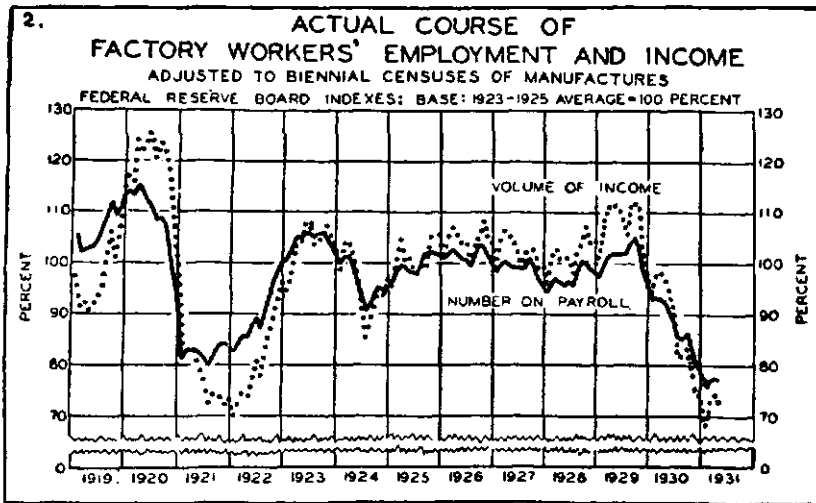
(usually one week) ending nearest to the 15th of the month. Schedule asks for total number of employees who worked any part of period, amount of payroll, operating time (days per week, hours per day - but not total man - hours worked or paid for during pay period), with certain data on wage-rate changes, etc.

¹ The adjustment to 1929 has not yet been completed.

UNITED STATES

to the Federal Reserve Board. The data for each of the industries are given weights determined by the Census of Manufactures, before these are combined into a composite representing all manufacturing industries. Census data permit making an allowance over the period of years covered for industries not represented currently in the indices, so that comparisons as to the general levels of total factory employment and payrolls from year to year are valid.

Charts 2 and 3 reveal some very interesting facts about factory workers' employment and money income in the United States. First, neither the number of workers nor the volume of money income has regained the boom levels reached during the

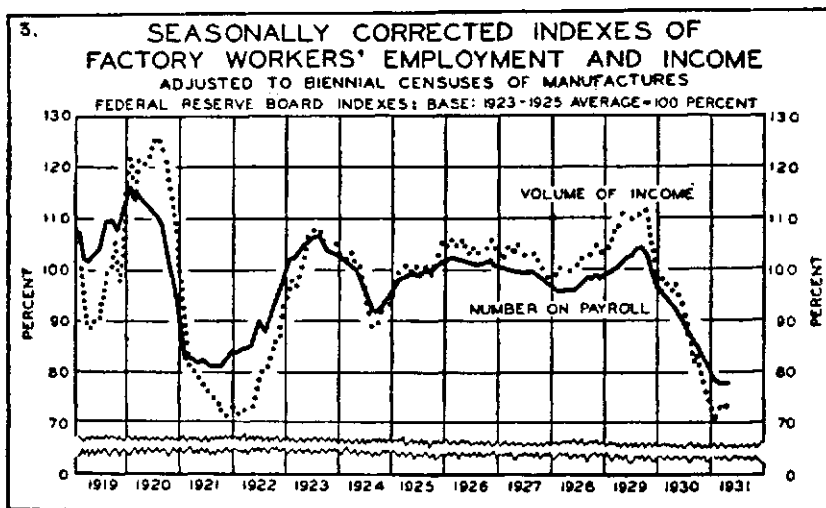


period of feverish activity in 1920, when the output shortages and maladjustments caused by the war were being worked off. We shall, however, by making allowances for retail price changes, show later in this Review that this was not true of factory workers' real income. In any case, it can be seen that the general post-war trend of number of workers on payroll has been approximately horizontal; this is also true of the volume of money income, although here some upward drift is discernible, especially in the period following 1923. This last is reflected in a divergence between the curves for the two variables during

EMPLOYMENT AND INCOME OF LABOR

the later post-war years, and was undoubtedly caused by the rising wage-levels which followed the increased productivity resulting from technological advance in manufacturing method since the war.

Secondly, the two charts clearly and faithfully record the course of the business cycle and confirm the opinion that factory workers' employment (an important factor in the economic life of this country) is radically affected during general business changes. The cataclysmic crash of 1920-1921 stands out with startling clarity in these pictures. Minor recessions can be seen in 1924 and 1927, and finally we have the development of the 1929 peak into the subsequent depression of 1930-1931. It is scarcely necessary to point out that the greater span between



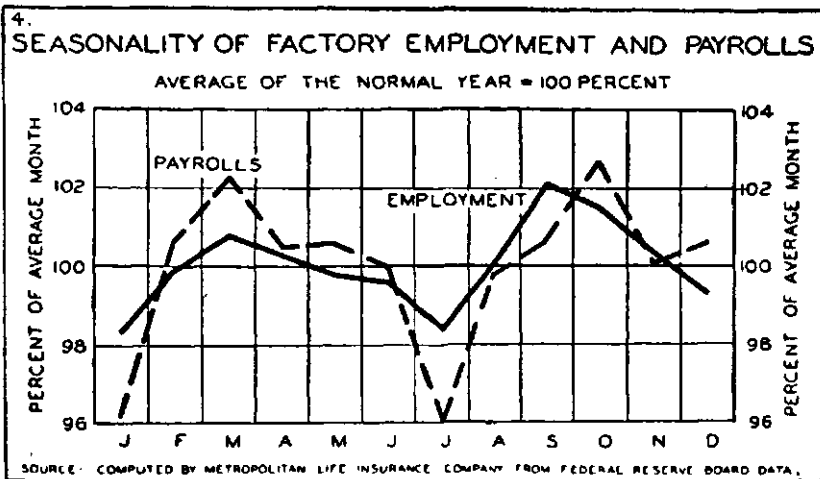
peak and trough in money income, as compared with number of workers on payroll, is in part a result of the changes from over-time operation during booms to part-timing during depressions - and in part a result of cyclical changes in wage-rates.

Reading from Chart 3, in which seasonal fluctuations have been eliminated, we find that the extent of shrinkage in number of factory workers on payroll from 1929 high to 1931 low (with data available only through April, 1931) is less than 26 percent as against 30 percent in 1920-1921. The

UNITED STATES

volume of money income receded 36 percent in this depression, as against 43 percent in the depression of a decade ago.

Referring again to Chart 2, which records the actual changes in factory workers' employment and income (i.e., without elimination of seasonal variation), and translating these indices with the aid of the Censuses of Manufactures into actual number of wage earners and of dollars, it can be estimated with substantial accuracy that from September 1929 to January 1931 there was a net displacement of 2,400,000 factory operatives, or a drop from 9,100,000 down to roughly 6,700,000; while the monthly payroll disbursements of manufacturers showed a shrinkage of nearly \$400,000,000, or from \$1,000,000,000 to approximately \$600,000,000. From the 1920 high to the 1921 low there was a net loss of about 3,000,000 wage earners from payrolls, i.e., from 9,700,000 to 6,700,000 approximately; the monthly disbursements to workers contracted about \$500,000,000 between June 1920 and January 1922, or from \$1,100,000,000 to \$600,000,000.

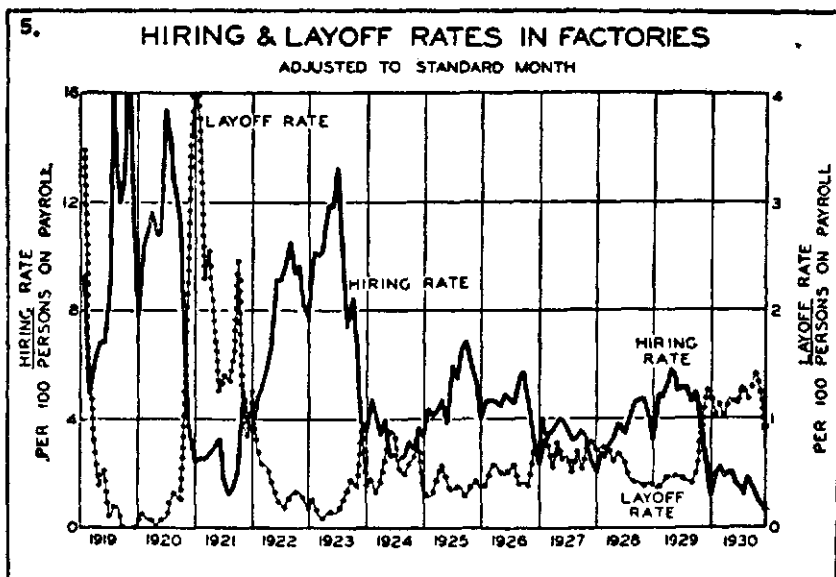


It will be noted that the "trough" figures for actual number of wage earners and monthly payrolls, quoted for January 1931 and for the depression of 1921-1922, are about identical although the index numbers shown in Chart 2 record somewhat more depressed lows for the current depression. This is because some

EMPLOYMENT AND INCOME OF LABOR

allowance for statistical bias (mentioned earlier in this paper, page 11, has been applied to the actual data for 1929, but not yet to the index numbers for that year. When the 1931 Census of Manufactures becomes available, both the actuals and indices will probably need some revision again.

Lastly, many individual manufacturing industries experience seasonal fluctuations in activity, and consequently in employment. In some industries, the extent of change from peak to trough is greater than in others; and of course, the dull seasons and active seasons are not coincident for each industry. However, despite such individual differences, composite factory employment still displays distinct seasonal characteristics (see Chart 2). An averaging of post-war experience indicates that



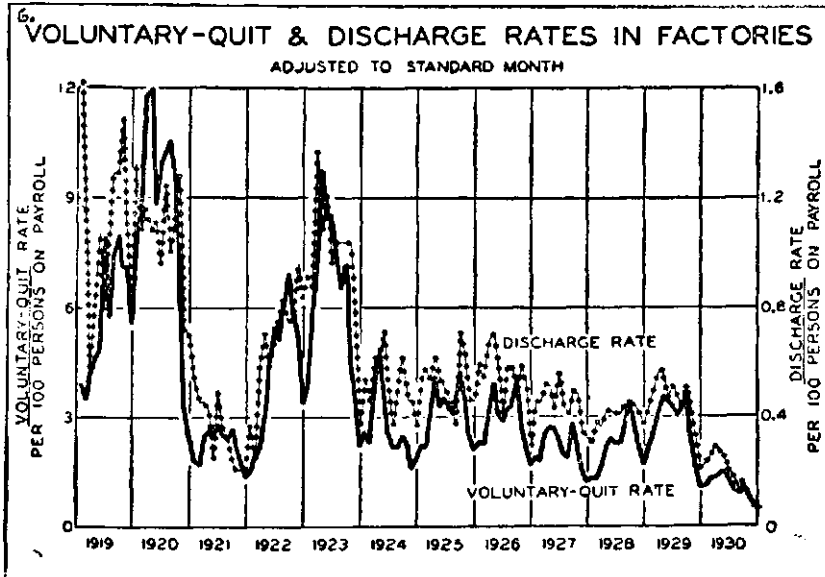
there are two busy seasons and two periods of curtailed activity in the "normal" year (see Chart 4). Spring and autumn are usually periods of expanded factory employment, the latter season normally being the more active one. The two dullest periods occur in mid-winter and mid-summer and these are, on the average, about equally depressed. In the "normal" year, number of factory workers on payroll varies about 4 percent from low-

UNITED STATES

month to high-month, while the volume of payroll disbursements shows a wider range of 7 percent. In any actual year, of course, these seasonal variations are usually either accentuated or dampened by the direction of the cyclical factors operating at the particular time.

FACTORY LABOR TURNOVER IN THE UNITED STATES.

Experimental work which we undertook several years ago in the Metropolitan Life Insurance Company resulted in the setting up of indices of factory labor turnover for the post-war years; these indices have proved of much interest in the field of industrial relations strictly defined; and they are also of significance as "barometric" indicators of internal conditions in the labor market. During 1929, the Metropolitan transferred this project to the United States Bureau of Labor Statistics, which compiles and publishes the turnover data currently. The Bureau has recently changed the method of computing these composites.



from the unweighted median to what is, in effect, the weighted arithmetic mean, but the rates plotted in the accompanying Charts 5 and 6 are median rates, comparable over the entire period shown in this respect.

EMPLOYMENT AND INCOME OF LABOR

The first thing about the charts that strikes the eye, is the fact that the four variables - layoffs, hirings, voluntary quits and discharges - have all narrowed the range of their fluctuations as the post-war period progressed. This probably reflects, in part, the growing effectiveness of personnel management during those years; it also reflects a certain amount of gain in general stability of manufacture, and consequently in the market for factory labor, during the years 1923-1929.

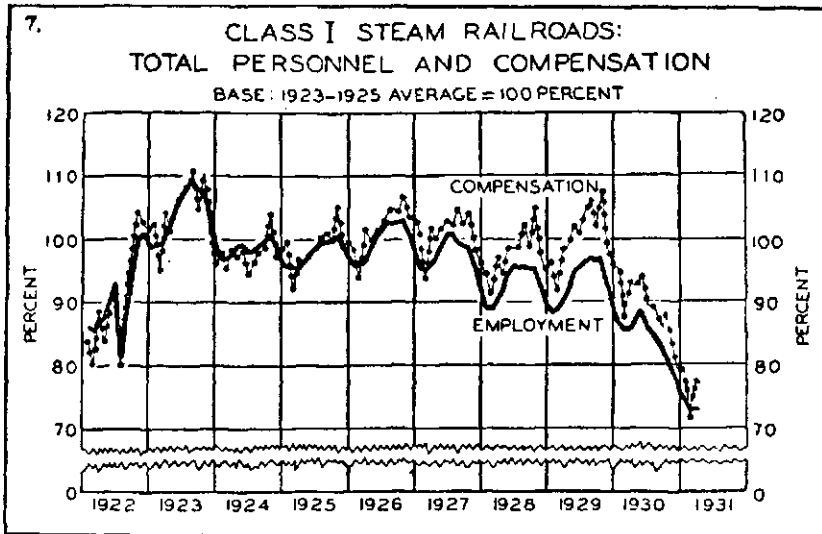
As would be expected, the rates of labor turnover reflect changes in general business conditions. They also show distinct seasonal fluctuations during the year. Chart 5 records increased rates of hiring (new accessions plus re-hires) during the active periods 1919-1920, 1922-1923, 1925-1926, and 1928-1929; these were correspondingly accompanied by lower layoff rates, and the curves charted for these two variables reflect this converse or "scissors-like" movement. During 1930, layoff rates averaged higher than in any year since 1921, although not nearly as high as in some months of that earlier year (compare chart). Hirings, and voluntary-quit and discharge rates (Chart 6), all made new post-war lows in 1930. In this connection, it must be remembered that the narrowing of the range of fluctuations (noted above) has pulled all of these rates down to lowered levels, so that in making comparisons between 1921 and 1930 this factor must always be taken into account.

It will be seen that voluntary-quit rates and discharges, which move in close sympathy with each other (Chart 6), tend to rise in times of increased employment and active general business, and to slump in periods of dullness. This has been explained as resulting from the attitude of workmen at these times. When business is generally better and the labor market is improving, workers feel that there are opportunities awaiting them on the outside; this makes some of them bolder, leading to more quits on their own initiative by some employees, and to the giving of cause for discharge by others through carelessness, indifference, disdainfulness, etc; conversely, the opposite attitude tends to prevail among workers during depressions. Also, mere change in average length of service of employees raises the incidence rate during a recovery, and lowers it in depression.

UNITED STATES

EMPLOYMENT AND COMPENSATION OF RAILROAD OPERATIVES SINCE 1922, BY MONTHS.

Rather comprehensive payroll statistics on Class 1 steam railroads have for nearly ten years been required from the carriers by the Interstate Commerce Commission at monthly intervals. These data cover number of employees, service-hours (for some classes, service-days) paid for, amount of compensation, etc., and they are given in considerable detail for a large number of employee-classes. Compensation and time worked cover the entire month; numbers of employees in most cases apply to the middle of the month. Since the Class 1 steam railroads employ about 95 percent of all steam-railroad operatives in the United States, we have a practically complete coverage of this very



important industry every month. The figures unfortunately do not become available to consumers of statistics as promptly as do payroll data for other industries; by the end of May we had, for number of employees only, a March figure; for amount of compensation and the other variables, February totals were the most recent ones at hand.

In Chart 7 are presented monthly indices which we have computed, on a 1923-1925 base, for employment and compensation of Class 1 steam railroad employees, beginning with January

EMPLOYMENT AND INCOME OF LABOR

1922. An outstanding characteristic is the seasonality of the industry, which tends to furnish its largest volume of employment during the summer and autumn. As a matter of fact, most of this peak is due to the class of activity termed maintenance of way and structures. The necessity of doing this work at that season arises mainly from two factors. First, only then is the weather mild enough to permit doing the work with the greatest economy of effort and expenditure. Secondly, during that period rail traffic is generally heaviest; to secure smooth and safe operation, the trackage must be most intensively cared for at such a time.

A striking feature of Chart 7 is the way in which the number employed by the railroads has tended gradually to become smaller, particularly during more recent years. The compensation of such employees has been much better sustained - hence the divergence between the dotted and solid lines in Chart 7, notably since 1926. The downward drift in number of workers is the result of technological improvements in equipment and management which have enabled the railroads to operate an equivalent load with fewer operatives.

The current depression in business has hit railroad employment and payrolls very hard, as Chart 7 likewise indicates. As a result of this "cyclical" factor and that of technological displacement, the year 1931 opened with a number employed smaller than in many years. February, with only 1,316,000 persons employed, stands at less than 73 percent of the 1923-1925 average (see solid line in chart). Approximately 1,760,000 were at work during August 1929, the peak month for that year, so that the decrease by February 1931 amounted to over 25 percent. Between October 1929 and February 1931, the compensation of railroad personnel experienced a shrinkage from \$264,000,000 to \$176,000,000 per month, a loss of about 33 percent. In terms of the index numbers in Chart 7, the drop is from 108 points to 72 points. These early 1931 levels compare unfavorably even with July 1922, when the railroad shopmen were on strike (see sharp break of both curves in chart during that year).

OTHER NON-MANUFACTURING EMPLOYMENTS.

Until very recent years, there has been practically no nationwide, monthly sampling of employment in non-manufacturing industries in the United States, other than that for Class 1 steam railroads already discussed. It is true that some States, notably Wisconsin and Illinois, did keep such a record, but their sampling was naturally confined to their own boundaries and could not safely be accepted as a gauge of national changes in such employments. Several years ago, the Federal Reserve Bank of Philadelphia constructed monthly indices of employment and payrolls in anthracite mining extending back to January 1921; this industry exists in practically no other place in the country but the State of Pennsylvania. In addition, there were a few other collecting agencies compiling data, but these were meager and localized.

Beginning in the latter half of 1928, the United States Bureau of Labor Statistics undertook a national sampling of monthly statistics on employment and payrolls in several non-manufacturing industries, such as retail trade, wholesale trade and public utilities. This project has been expanded, both as to the size of sample and as to the variety of lines canvassed, and now covers 14 classes - exclusive of building construction, collection for which is still in its developmental stages. The form of schedule sent monthly to these employers is similar to that used for manufacturing industries. One of these 14 lines, canning and preserving, is considered a manufacturing industry by the Bureau of the Census and the Federal Reserve Board, and is included by the latter in its general index of factory employment discussed earlier in this Report.

The following table lists the percentages of change between 1929 and 1930 in number of employees and amount of payroll for 12 of the 14 non-factory lines. These are the only two years for which a comparison can be made, but this will throw light on the behaviour of such types of employment in the current depression at least. Monthly indices of both employment and payrolls in these industries are shown in table V of the Appendix for the years 1929, 1930, and as much of 1931 as is available at this writing; and on panel-page 22 are presented charts of

EMPLOYMENT AND INCOME OF LABOR
NON-FACTORY EMPLOYMENTS CANVASSED BY THE U. S. BUREAU
OF LABOR STATISTICS

| Line of Activity | Percentage Change From 1929 Average to 1930 Average | |
|---|--|-----------------------|
| | Number of Employees | Amount of Payrolls |
| Metal Mines | — 16.8 % | — 22.0 % |
| Quarries and non-metallic mines | — 15.7 " | — 20.7 " |
| Crude oil companies | — 12.6 " | — 14.1 " |
| Bituminous coal mines | — 6.6 " | — 18.7 " |
| Anthracite mines | — 6.6 " | — 4.7 " |
| Canneries, etc. | + 3.9 " | — 3.9 " |
| Electric Railways | — 6.6 " | — 6.5 " |
| Telephone and telegraph companies | — 2.1 " | + 2.9 " |
| Power, light and water companies | + 3.0 " | + 4.3 " |
| Retail Stores | — 4.1 " | — 3.8 " |
| Wholesale establishments | — 4.0 " | — 4.1 " |
| Hotels | — 0.8 " | — 1.5 " |

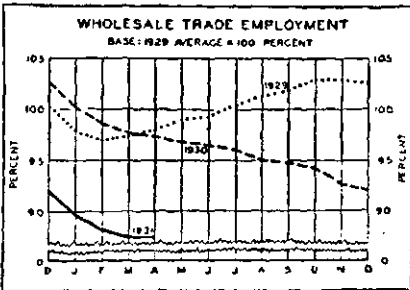
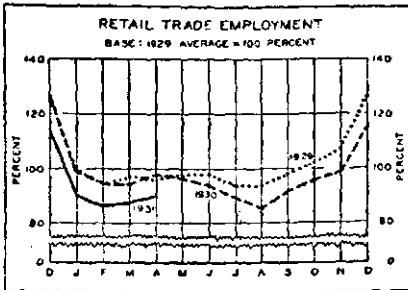
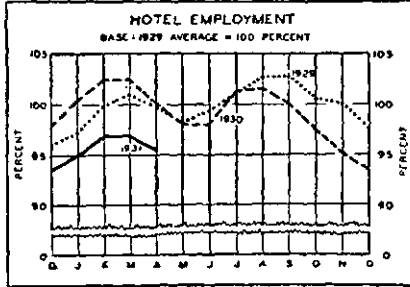
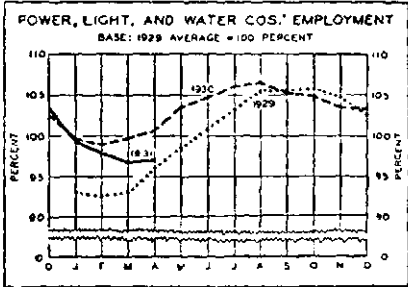
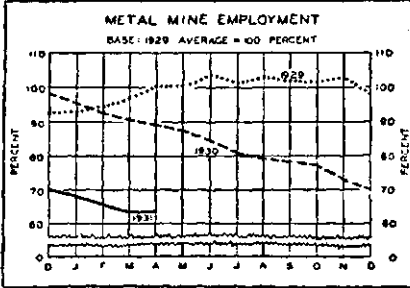
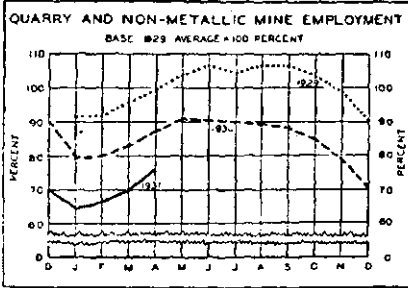
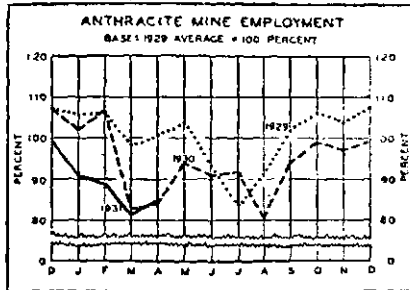
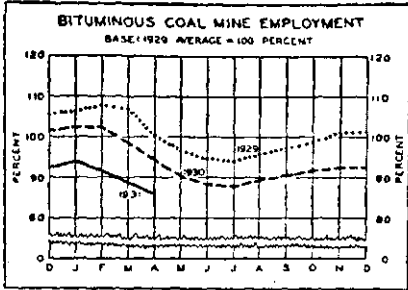
monthly employment in eight selected lines.

The preceding table indicates that the volume of employment given by the mining industries suffered a considerable shrinkage from 1929 to 1930. Metal mines showed a drop of 16.8 percent in the average number of employees, while the amount of payrolls contracted 22 percent; corresponding declines of 15.7 percent and 20.7 percent are recorded for quarries and other non-metallic mines combined. Bituminous coal mines and anthracite collieries each declined less than 7 percent in employment between the two years; but it must be remembered that in these two industries, to a greater extent than in others, part-timing is traditional, or "unemployment takes place within employment" as one observer has put it. In other words, miners are still considered employed by the mines even though there is little or no work for them to do; therefore, payroll disbursements are certainly the better measure of changes in the real volume of employment at coal mines. Total 1930 disbursements to bituminous coal miners were almost one-fifth less than for the preceding year; the anthracite mines' payroll was only 4.7 percent short of 1929, but this moderate drop results chiefly from the fact that 1929 itself had been a poor year for anthracite workers.

UNITED STATES

EMPLOYMENT IN

SELECTED NON-FACTORY INDUSTRIES



EMPLOYMENT AND INCOME OF LABOR

Turning to public utilities, we find that both employment and payrolls of electric railways (exclusive of car-repair shops) in 1930 sank 6½ percent below the preceding year; telephone and telegraph companies reduced the number of their employees about 2 percent, but disbursed nearly 3 percent more money in payrolls. Power, light, and water concerns employed, on the average, a moderately larger number of workers during 1930, and showed a corresponding increase over 1929 in payroll disbursements.

Retail stores and wholesale establishments experienced small shrinkages between the two years compared; for each of these, the declines averaged about 4 percent for both number of employees and amount of payrolls. The volume of employment furnished by hotels dropped by only a relatively slight amount. It is interesting to note that the three lines just mentioned, which (like telephone and telegraph companies, and in some degree power, light, and water companies) are predominantly employers of "white-collar" labor, experienced rather mild drops in employment and payroll disbursements or else registered increases for 1930 as against 1929. How hard hit the mining industries were in this depression, has already been described; it will be recalled that employment in factories and on steam railroads also suffered severe curtailments. In factories, the number on payroll averaged 13 percent lower in 1930 than in the preceding year, while amount of payrolls totalled nearly 19 percent smaller: the corresponding shrinkages for steam railroads were 10 percent and 12 percent, respectively. The indications then are those which would be expected: that "overalls" workers tend to suffer more severe shrinkages in employment during depression than do "white-collar" workers.

Now let us turn to monthly fluctuations in the most important non-manufacturing employments (both "white-collar" and "overalls") reported on by the United States Bureau of Labor Statistics; some of these are shown in graphic charts on panel-page 22. The distinct seasonal characteristics of employment in several of these industries are worth noting. For example, the number employed in both the bituminous and the anthracite

UNITED STATES

branches of the coal-mining industry tends to expand toward the autumn, reach peaks during the winter, and slacken in the spring; they show considerable shrinkage during the dull summer months. If the amount of payrolls were charted, this seasonal ebb and flow would appear in even sharper relief. Employment in quarries and other non-metallic mines is generally depressed at about mid-winter, and busiest during the open weather of summer and autumn. The extent to which the number at work in each of these three extractive industries has suffered contraction in this depression, is apparent from the charts on panel-page 22. The decline in metal-mine employment stands out strikingly. It has continued without abatement throughout 1930 and into 1931 through March. Metal mining is so primary an industry as to feel very severely the impact of a recession in general industrial activity and business.

Power, light and water companies increased the number of their employees during the spring and summer of 1930, exceeding the levels for corresponding months of 1929 by a substantial margin - which, however, narrowed as the year progressed. Decreases, leading to slight shrinkages below 1929, set in about the autumn of 1930. The employment level during the first quarter of 1931 was but slightly below the corresponding months of the year before, and considerably higher than in the first quarter of 1929 (see chart on page 22).

The indices of hotel employment and retail trade employment both exhibit seasonal characteristics that would be expected of them in the United States. Generally speaking, hotels have two periods of activity during the year with a lull between them, probably as a result of the shifting from winter to summer resorts. Retail stores show an accelerated rise in number employed beginning about autumn, and reaching a peak during the winter holiday season.

Hotel employment during the first half of 1930 averaged higher than for the corresponding period of 1929; this relationship was completely reversed during the second half-year, as can be seen by reference to the chart on page 22. For retail stores, 1930 employment held up to the levels of the preceding year until June; from then on, it weakened perceptibly and began to fall

EMPLOYMENT AND INCOME OF LABOR

short of its marks during the corresponding months of 1929. For hotels as well as retail stores, the curves in the charts for the first four months of 1931 sag noticeably below the levels for that period during the two preceding years.

Wholesale establishments expanded their employment throughout most of 1929. During the following year, they steadily reduced the number employed until at the end of the year the deficiency from the December 1929 level averaged 10 percent. Employment in this line continued to ebb during the first quarter of 1931.

SPECIAL DATA ON SEVEN "WHITE-COLLAR" EMPLOYMENTS.

To throw light on a subject upon which there has been much conjecture, diverse opinion, but too little positive data - namely, the impact of depression on "white-collar" employments - the Metropolitan Life Insurance Company made a special canvass among employers in six such lines of employment. Of the 950 employers invited to co-operate, about one-half responded; the reporting employers had (in 1930) nearly 150,000 employees, and a payroll equivalent to about \$275,000,000 per annum - constituting, we hope, a fairly indicative sample. In cases affected by merger, precautions were taken to use only comparable figures. The schedule called for number of employees and amount of payrolls during January 1930 and January 1931; it also requested the 1929 and 1930 averages for each of these variables.

As was expected, the results indicated a situation not nearly as bad as might be supposed from some conjectural statements which had gained circulation in regard to displacement of white-collar employees. Thus, four of the six classes showed gains in both average number of employees and average amount of payroll, between 1929 and 1930; security houses and advertising agencies showed a slight decline between those two periods.

Comparing January 1931 with January 1930, the results are of course not so favorable. Savings banks did increase their workforces and payrolls considerably, and hospitals slightly. Of the other four classes, two registered very slight payroll increases, while the other two reduced payrolls; and all four of these classes showed a reduction as to number of employees. It is

UNITED STATES

true, however, that none of the declines were striking except those of security and investment-banking houses.

The results are summarized in the following table.

RESULTS OF SPECIAL CANVASS BY METROPOLITAN LIFE INSURANCE COMPANY AMONG 6 "WHITE-COLLAR" CLASSES.

| Lines of Employment | Percentage Change From — | | | |
|--|------------------------------|---------|------------------------|----------|
| | 1929 average to 1930 average | | Jan. 1930 to Jan. 1931 | |
| | Employees | Payroll | Employees | Payroll |
| Savings banks | + 4.9 % | + 7.3 % | + 4.9 % | + 7.3 % |
| Commercial banks and trust companies | + 1.6 . | + 2.8 . | — 5.3 . | — 2.9 . |
| Security and investmentbanking houses | — 0.8 . | — 0.7 . | — 12.2 . | — 10.2 . |
| Fire, marine and casualty-insurance companies . . | + 1.2 . | + 2.4 . | — 1.6 . | + 0.1 . |
| Advertising and market research agencies | — 2.0 . | — 0.5 . | — 4.0 . | + 0.3 . |
| Hospitals | + 2.9 . | + 7.1 . | + 0.3 . | + 2.5 . |

It is interesting to note here the results of a canvass previously made among a seventh group of "white-collar" employees, those of life insurance companies, by the Association of Life Insurance Presidents. This survey covered all 60 of the Association's United States member companies. The canvass called for number of employees only, and specified two dates - October 31, 1929 and December 31, 1930. During that span of time, a period in which general business activity was suffering recession, the life insurance companies showed an increase of 3.6 percent in total number of employees, or from 260,938 to 270,209. The office force was expanded by 4.4 percent, while the number of licensed agents increased by 3.3 percent.

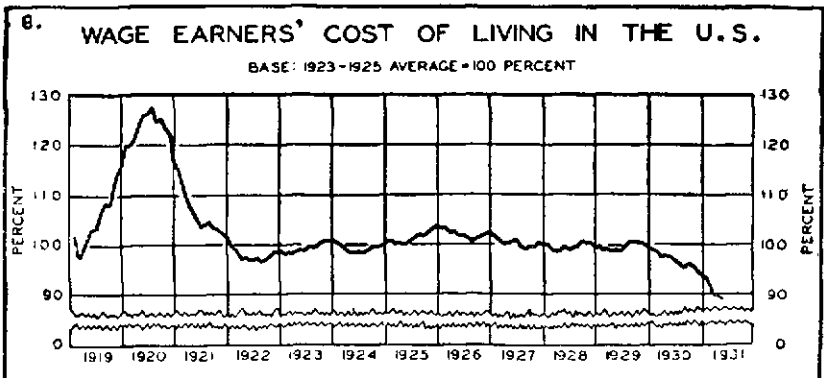
MONEY INCOME VERSUS PURCHASING POWER.

The changes in the economic well-being of the wage earner over a period of time obviously cannot be measured either by changes in "nominal" wage-rates or by changes in actual money income (payroll disbursements). This is particularly true if wide fluctuations have taken place in the "retail" cost of living. Wage-

EMPLOYMENT AND INCOME OF LABOR

rate data for the United States may be dismissed as statistically fragmentary, and in any case, as inadequate for the purpose of measuring total wage income, particularly because of changes in the length of the work-day during the period studied, but also because they are not reflective of the effects of part-time and over-time employment on the earnings of labor.

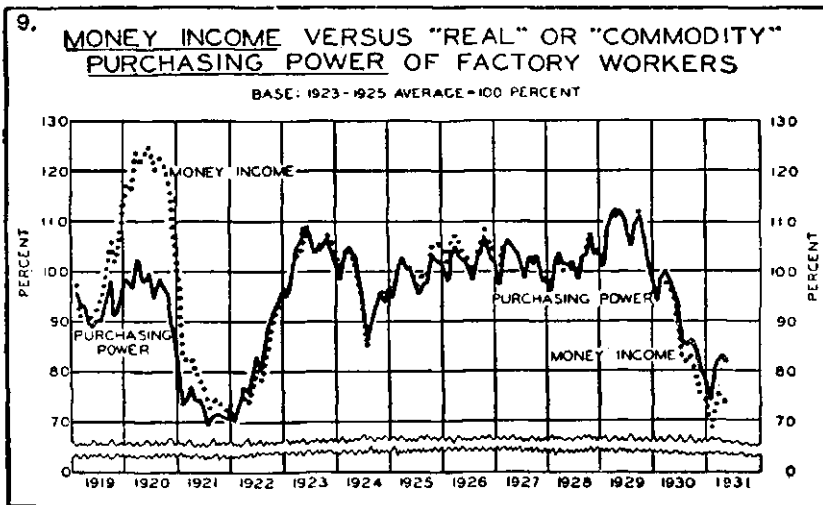
It has already been stated earlier in this paper that reliable data on the total money income of all labor-classes combined are non-existent for the United States. Of the two lines for which such data are available monthly for a considerable period of time - factories and steam railroads - we have selected the money income of factory wage earners, now the country's most numerous class of employees, in order to illustrate the effects that cost-of-living changes have had on the "real" or commodity purchasing power of this group since the War.



Prices of course rose very rapidly during the war and reached a peak during 1920. On chart 8 is shown an index of wage earners' retail cost-of-living fluctuations, constructed from semi-annual (and earlier, quarterly) data of the United States Bureau of Labor Statistics, interpolated monthly by use of data of the National Industrial Conference Board and the Massachusetts Commission on the Necessaries of Life. This index shows that since the collapse of the 1920 boom, the cost of living remained comparatively stable (except for minor fluctuations) until the 1930 depression set in, during which period it has fallen by more than one-tenth of its 1929 level.

UNITED STATES

The aggregate money income of the factory wage earners has been deflated by use of this cost-of-living index and the resultant index of "real" income or commodity purchasing power appears as the solid line in chart 9. Money income is shown as the dotted line in the chart. It is quite apparent that the gains in money income during the 1920 boom were largely fictitious: the aggregate real income of factory wage earners has bulked considerably larger most of the time since then, than it was during that year! Note the wide span between the levels of the money income and the purchasing-power curves during 1920. It is also clear that the shrinkage in the cost of living during the



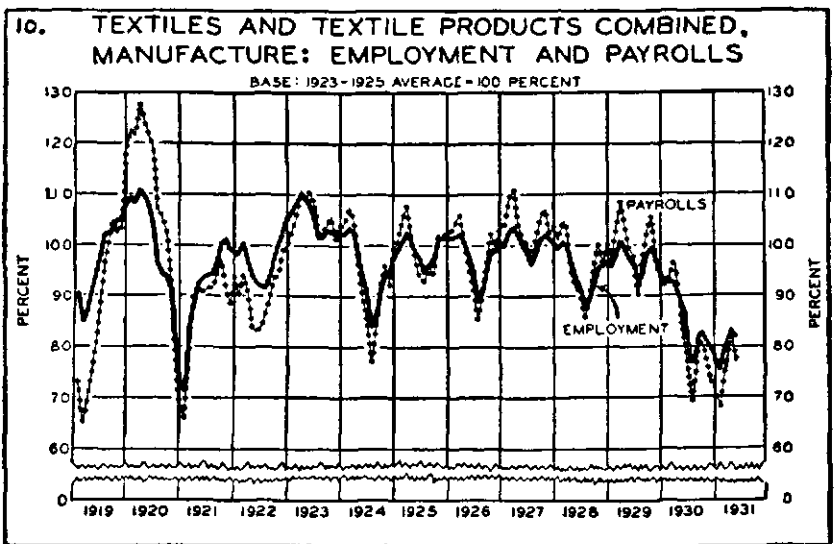
current depression has absorbed a considerable portion (about one-fourth) of the economic impact of the drop in money income upon this group of workers. Although both curves stood at about the same level in 1929, the solid line stands much higher during 1931 than does the dotted line.

MANUFACTURE OF TEXTILES AND TEXTILE PRODUCTS.

Among the individual manufactures, the great textile industry of the United States is very important, covering a multitude of varied lines: cotton goods, silks, woollens and worsteds, carpets and rugs, men's clothing, women's clothing, hosiery and knit

EMPLOYMENT AND INCOME OF LABOR

goods, millinery, the dyeing and finishing of textiles, etc. Monthly indices of employment and payrolls in all of these textile industries combined have been computed for the post-war years by the Federal Reserve Board and appear in Chart 10. The individual industries which make up this composite are seasonal in character, and this is reflected in the curves for the entire combination. After a summer curtailment of activity, the wheels speed up and the volume of employment rises until a peak is often reached in the spring, after which employment recedes again until autumn.



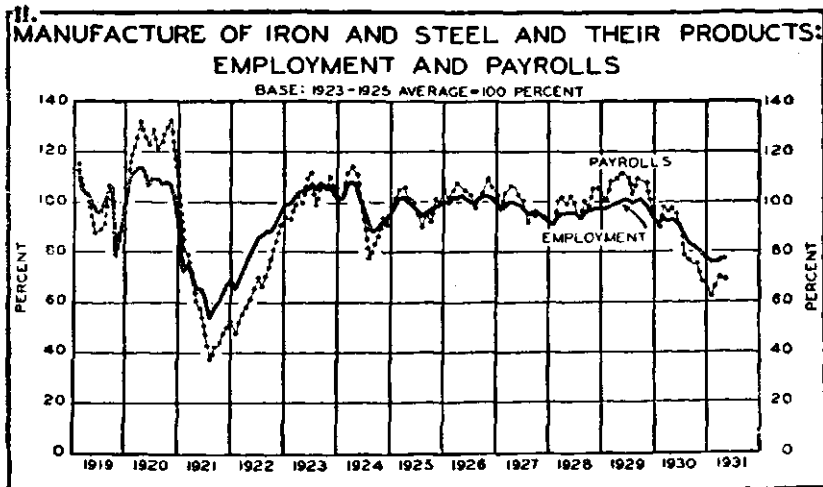
Although the trend of employment and payrolls in the textile manufacturing group has held up fairly well during the years charted, this has not been the case with all of its component industries, particularly within recent years. For example, since 1923 men's clothing and woolen and worsted manufactures have both been sloping downward, the first industry perhaps on account of technological improvements in some of its operations, and the second probably because of a style drift away from some of its majors products. The volume of employment in silk mills has exhibited an approximately horizontal trend, as it did in cotton mills until about 1929. On the other hand, hosiery and

knit goods manufacturers and dyers and finishers of textiles had been generally expanding their employment by considerable amounts for several years until the 1930 depression hit them.

Turning to the combined textile group again, Chart 10 indicates that employment and payrolls, which declined sharply during the first half of 1930, recovered somewhat during the second half, and again in early 1931. In no month so far (latest data as of April 1931) in the current depression have these indices fallen to the lows of January 1921; but this is offset by the fact that the period of much-curtailed employment did not last as long in 1920-1921, as it has during 1930-1931.

MANUFACTURE OF IRON AND STEEL AND THEIR PRODUCTS.

The basic iron and steel industry undergoes wide and distinct cyclical changes in activity, particularly during major depres-



sions. Chart 11 indicates that the number employed (solid line) in the manufacture of iron and steel and their products was almost cut in half from the 1920 peak to the 1921 trough, measuring from the 1929 high to the low registered during the first quarter of 1931, the reduction in employment is less than one fourth. Although employment and the monthly amount of payrolls in these industries had fallen substantially below their

EMPLOYMENT AND INCOME OF LABOR

1924 minimums by January 1931, they were still considerably nearer to these lows than to their 1921 bottoms.

The iron and steel group includes several varied manufacturing industries, among which steel works and rolling mills form the most important individual line. Other constituent industries are structural iron work, heating equipment and hardware manufacture. Of the four lines mentioned, all except structural iron work have two active employment seasons in the year, usually occurring during the spring and autumn; these bulges are reflected by the payroll curve for the entire iron and steel group (see dotted line in chart 11). Structural iron work has only one peak a year, and this usually falls during the second half of the year, when building construction activity reaches a maximum. Employment and payrolls in steel works and rolling mills were still fairly large during the first half of 1930; it was the second half-year that brought sharp declines in this branch. In hardware manufacture, the downward movement set in during early 1929, perhaps because of poor demand from the building industry. Heating-equipment manufacture, except for seasonal interruptions, has undergone reduction in its volume of employment since 1926; it is during this period, and particularly since 1928, that building construction has been generally receding in the United States. On the other hand, employment and payroll disbursements in structural iron work manufacture have shown considerable growth over this same period until late in 1929, when both seasonal and cyclical factors united in forcing a reversal downward which was interrupted during the next spring, only to be resumed at an accelerated rate during the months that followed.

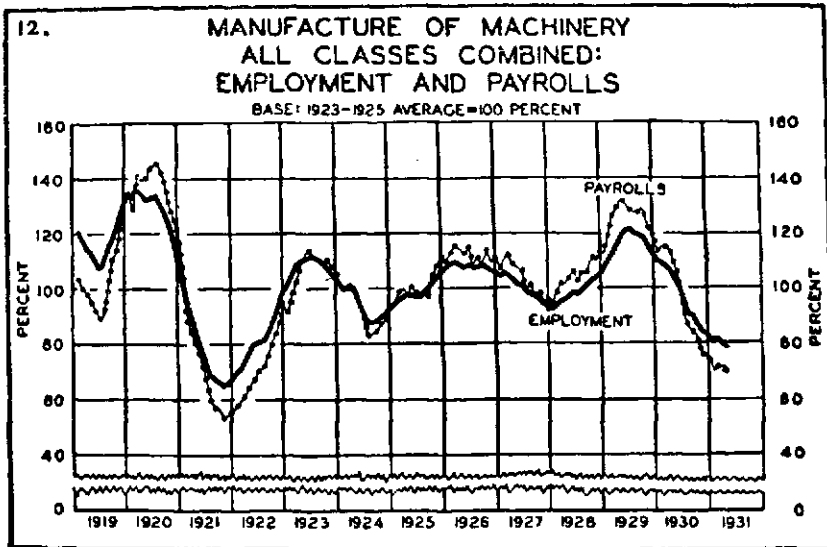
MANUFACTURE OF MACHINERY AND RELATED EQUIPMENT.

The cyclical rather than the seasonal factor is most prominent in the employment and payrolls of the machinery manufacturing group. The scale on Chart 12 will indicate how very sharp were the declines in 1920-1921 and 1929-1931. Employment in machinery manufacture rises and ebbs in an orderly fashion; it is not noticeably affected by seasonal changes like the textile group. It is also noteworthy that the machinery industry re-

UNITED STATES

covered from depression much later in 1921 than did the textile industry, the products of which can be more nearly termed "consumption" goods, rather than "production" goods as in the case of machinery.

The machinery manufacturing group comprises such lines as foundries and machine shops, electrical machinery, agricultural implements and machine tools. Employment in the electrical machinery industry has grown tremendously since the war. The year 1929 was a very active one in machinery manufacture



generally; payroll disbursements of agricultural implement makers during their peak month totalled about twice as large as the 1923-1925 average; a similar comparison for the machine-tool industry would show a rise of 80 percent, and in electrical machinery 45 percent.

In foundries and machine shops, the leading constituent class in the machinery group, employment and payrolls have in this depression fallen considerably below their 1924 low-points. Indeed, all four of the individual industries distinguished above for the machinery group have suffered severe curtailments in number of employees and volume of payrolls since their 1929 peaks.

UNITED STATES

Space limitations forbid a more extended review of employment changes in individual industries, but members of the International Industrial Relations Association who are specially interested in any important single line of manufacture will find most of them recorded each month in the Federal Reserve Bulletin. The indices which it cites are, like those selected for citation in this paper, adjusted to the biennial census data in a manner which yields significant indications of the levels attained at any given time, as well as the movements from month to month.

New York, June 11th 1931.

TABLE I. FACTORY EMPLOYMENT AND PAYROLLS IN THE UNITED STATES

| Base: 1923-1925 Average - 100 Percent | | | | | | | | |
|---|-------------------------------------|-------------------------------------|----------------|-------------------------------------|-------------------------------------|----------------|-------------------------------------|-------------------------------------|
| (Indices of Federal Reserve Board; Adjusted to Censuses of Manufactures Through 1927) | | | | | | | | |
| Average for Year | | | 1930 by Months | | | 1931 by Months | | |
| | Index of Number on Payroll | Index of Amount of Payroll | | Index of Number on Payroll | Index of Amount of Payroll | | Index of Number on Payroll | Index of Amount of Payroll |
| 1919 | 106.6 | 98.1 | Jan. | 93.2 | 94.4 | Jan. | 76.4 | 68.4 |
| 1920 | 107.9 | 118.1 | Feb. | 93.3 | 97.7 | Feb. | 77.3 | 73.2 |
| 1921 | 82.4 | 76.8 | Mar. | 93.1 | 98.2 | Mar. | 78.1 | 74.9 |
| 1922 | 90.1 | 81.1 | Apr. | 92.6 | 97.1 | Apr. | 77.9 | 73.6 |
| 1923 | 104.2 | 103.4 | May | 90.9 | 94.5 | | | |
| 1924 | 96.2 | 95.7 | June | 88.8 | 90.7 | | | |
| 1925 | 99.7 | 100.9 | July | 85.5 | 82.6 | | | |
| 1926 | 101.4 | 104.3 | Aug. | 85.1 | 81.7 | | | |
| 1927 | 98.8 | 102.1 | Sept. | 86.4 | 83.0 | | | |
| 1928 | 97.2 | 101.8 | Oct. | 84.3 | 80.8 | | | |
| 1929 | 101.1 | 107.7 | Nov. | 81.0 | 75.1 | | | |
| 1930 | 87.7 | 87.5 | Dec. | 78.8 | 73.7 | | | |

TABLE III. EMPLOYMENT AND COMPENSATION OF CLASS I STEAM RAILROAD EMPLOYEES.

| (Interstate Commerce Commission) | | | | | | |
|---|-----------------------|--------------------------|-----------------------|--------------------------|-----------------------|------|
| Base: 1923-1925 Monthly Average - 100 Percent | | | | | | |
| Average for Year | | 1930 by Months | | 1931 by Months | | |
| Index of Number Employed | Index of Compensation | Index of Number Employed | Index of Compensation | Index of Number Employed | Index of Compensation | |
| 1922 | 91.0 | 90.9 | Jan. 86.3 | 95.3 | Jan. 73.7 | 77.9 |
| 1923 | 103.9 | 103.6 | Feb. 85.4 | 87.1 | Feb. 72.8 | 71.8 |
| 1924 | 98.2 | 97.6 | Mar. 85.5 | 92.8 | Mar. 72.9 | 77.4 |
| 1925 | 97.8 | 98.8 | Apr. 87.0 | 92.2 | | |
| 1926 | 99.8 | 101.8 | May 88.5 | 93.8 | | |
| 1927 | 97.3 | 100.5 | June 88.5 | 89.1 | | |
| 1928 | 92.9 | 97.5 | July 84.7 | 89.0 | | |
| 1929 | 93.2 | 100.1 | Aug. 83.7 | 88.2 | | |
| 1930 | 83.5 | 88.2 | Sept. 82.1 | 85.9 | | |
| | | | Oct. 80.4 | 87.4 | | |
| | | | Nov. 77.1 | 79.2 | | |
| | | | Dec. 75.0 | 78.9 | | |

TABLE II. FACTORY EMPLOYMENT AND PAYROLLS BY MAJOR INDUSTRIAL GROUPS.

| Average for Year | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| (Federal Reserve Board Indices; Adjusted to Censuses of Manufactures Through 1927) | | | | | | | | | | | | |
| Base: 1923-1925 Average - 100 Percent | | | | | | | | | | | | |
| Employment | | | | | | | | | | | | |
| Industrial Group | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Iron & Steel & Their Products | 99.5 | 107.0 | 65.4 | 83.9 | 104.4 | 97.2 | 98.4 | 101.3 | 96.8 | 95.4 | 98.9 | 87.1 |
| Machinery | 117.2 | 128.9 | 77.0 | 82.2 | 107.7 | 93.6 | 98.7 | 107.9 | 100.0 | 98.7 | 116.1 | 97.5 |
| Textiles | 97.8 | 98.3 | 93.0 | 97.3 | 105.3 | 95.2 | 99.6 | 97.9 | 100.8 | 95.1 | 96.9 | 84.7 |
| Food Products | 109.0 | 103.8 | 94.8 | 95.5 | 102.0 | 100.0 | 98.0 | 98.5 | 99.1 | 98.6 | 99.7 | 94.7 |
| Paper and Printing | 96.8 | 104.4 | 89.1 | 92.7 | 99.3 | 99.8 | 101.0 | 103.6 | 103.1 | 101.7 | 104.2 | 101.1 |
| Lumber and Products | 93.2 | 88.1 | 74.5 | 95.5 | 100.9 | 98.1 | 101.0 | 100.5 | 92.3 | 88.1 | 88.2 | 69.1 |
| Transportation Equipment | 96.3 | 104.2 | 71.7 | 78.3 | 106.9 | 94.9 | 98.3 | 98.3 | 88.4 | 90.6 | 94.6 | 76.1 |
| Leather & Products | 107.5 | 98.5 | 87.8 | 97.6 | 106.2 | 96.3 | 97.5 | 96.8 | 97.3 | 93.5 | 93.7 | 85.9 |
| Cement, Clay & Glass | 84.7 | 89.1 | 73.6 | 88.1 | 100.8 | 99.0 | 100.2 | 101.9 | 97.5 | 92.3 | 89.6 | 75.6 |
| Non-Ferrous Metals | 114.6 | 121.3 | 74.5 | 90.1 | 107.1 | 95.1 | 97.9 | 99.5 | 97.4 | 96.6 | 101.1 | 78.1 |
| Chemicals | 108.3 | 97.1 | 70.8 | 81.0 | 101.5 | 95.9 | 102.6 | 108.8 | 107.9 | 105.3 | 112.3 | 104.5 |
| Rubber Products | — | — | — | — | 102.5 | 91.8 | 105.7 | 104.6 | 104.0 | 108.6 | 108.3 | 82.7 |
| Tobacco Products | 112.9 | 111.7 | 110.5 | 107.2 | 105.8 | 98.8 | 95.4 | 90.8 | 93.6 | 93.7 | 91.6 | 87.4 |
| Payrolls | | | | | | | | | | | | |
| Iron & Steel & Their Products | 98.1 | 123.8 | 55.8 | 69.9 | 103.8 | 96.7 | 99.4 | 104.2 | 98.5 | 99.9 | 106.0 | 84.4 |
| Machinery | 104.1 | 135.6 | 69.6 | 72.8 | 107.0 | 92.6 | 100.4 | 111.9 | 103.5 | 104.7 | 125.6 | 96.7 |
| Textiles | 90.0 | 107.8 | 89.2 | 91.0 | 105.8 | 94.4 | 99.8 | 98.4 | 104.1 | 96.4 | 99.7 | 81.9 |
| Food Products | 98.0 | 109.2 | 93.3 | 90.2 | 100.1 | 100.5 | 99.4 | 101.2 | 102.4 | 102.5 | 104.5 | 99.6 |
| Paper and Printing | 74.2 | 100.3 | 83.3 | 86.1 | 96.1 | 99.7 | 104.2 | 110.4 | 110.1 | 109.8 | 114.5 | 110.0 |
| Lumber and Products | 89.2 | 109.2 | 68.0 | 82.1 | 100.0 | 98.4 | 101.6 | 102.0 | 95.1 | 90.5 | 90.6 | 65.7 |
| Transportation Equipment | 88.8 | 111.5 | 72.7 | 76.4 | 107.1 | 93.2 | 99.7 | 99.1 | 91.3 | 97.2 | 103.5 | 76.4 |
| Leather & Products | 99.0 | 105.9 | 87.0 | 96.0 | 106.8 | 95.5 | 97.8 | 98.1 | 98.6 | 92.4 | 93.1 | 75.5 |
| Cement, Clay & Glass | 72.6 | 93.6 | 67.4 | 73.2 | 98.9 | 100.7 | 100.3 | 101.5 | 96.2 | 90.4 | 87.0 | 68.7 |
| Non-Ferrous Metals | 99.3 | 130.4 | 66.7 | 82.3 | 105.3 | 94.8 | 99.9 | 103.0 | 100.3 | 107.1 | 115.2 | 79.6 |
| Chemicals | 100.1 | 113.7 | 66.9 | 73.7 | 99.8 | 96.3 | 103.9 | 111.0 | 109.7 | 106.0 | 113.4 | 103.9 |
| Rubber Products | — | — | — | — | 101.5 | 92.7 | 105.8 | 106.2 | 108.5 | 114.8 | 111.0 | 80.6 |
| Tobacco Products | 107.2 | 124.6 | 104.6 | 99.2 | 104.2 | 99.4 | 96.3 | 92.1 | 91.1 | 88.4 | 87.7 | 79.4 |

TABLE IV.

SIZE OF NON-MANUFACTURING SAMPLES REPORTING TO THE
UNITED STATES BUREAU OF LABOR STATISTICS ON EMPLOYMENT
AND PAYROLLS-CHANGES, NOVEMBER-DECEMBER 1930.

(Compared with Number of Establishments, November-December 1929)

| Line of Activity | 1929 Status | 1930 Status | | |
|---|--|--|-----------------------------|---------------------|
| | Number of Es- tablish- ments ¹ | Number of Es- tablish- ments ¹ | Number of Em- ployees | Payroll Per week |
| Coal mining: | 1,378 | 1,493 | 353,269 | \$8,581,268 |
| Anthracite | 162 | 159 | 133,745 | 3,915,275 |
| Bituminous | 1,216 | 1,334 | 219,524 | 4,665,993 |
| Metalliferous mining | 346 | 339 | 45,712 | 1,182,275 |
| Quarrying and non-metallic mining | 655 | 756 | 29,641 | 666,169 |
| Crude petroleum | — | 534 | 28,128 | 1,049,454 |
| Public utilities | 9,463 | 12,013 | 726,229 | 22,559,765 |
| Telephone & telegraph | — | 7,934 | 324,014 | 9,730,635 |
| Power, light, water | — | 3,601 | 252,232 | 8,122,113 |
| Electric railroads ² | — | 478 | 149,983 | 4,707,017 |
| Trade | 8,102 | 9,759 | 411,969 | 9,851,472 |
| Wholesale | 1,778 | 1,960 | 63,350 | 1,980,307 |
| Retail | 6,324 | 7,799 | 348,619 | 7,871,165 |
| Hotels ³ | 1,784 | 2,018 | 145,076 | 2,441,910 |
| Canning and preserving | 457 | 969 | 36,698 | 610,916 |
| Laundries | — | 183 | 17,931 | 353,482 |
| Dyeing and cleaning | — | 69 | 2,680 | 64,059 |
| TOTAL | 22,185 | 28,133 | 1,797,333 | \$47,360,770 |

¹ "Establishment" is so defined by the Bureau as to count all separately reported units of a common employer - e.g., all reported exchanges of a given telephone company, and all reported power-plants of a power company.

² Exclusive of electric car repair shops.

³ Hotel Payrolls include cash payments only.

TABLE V. EMPLOYMENT AND PAYROLLS IN NON-MANUFACTURING INDUSTRIES

| (United States Bureau of Labor Statistics) | | | | | | | | | | | | Base: 1929 Monthly Average - 100 Percent | |
|--|-------------|------------|-------------|-------|--------------------------------|-------|---------------------------|-------|----------------------|-------|-------|--|--|
| 1929 | Coal Mining | | Metalmining | | Quarrying & Non-Metall. Mining | | Crude Petroleum Producing | | Canning & Preserving | | | | |
| | Anthracite | Bituminous | | | | | | | | | | | |
| | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | |
| Jan. | 105.7 | 100.7 | 106.4 | 105.1 | 93.1 | 88.0 | 91.6 | 85.9 | 90.0 | 93.1 | 50.8 | 57.3 | |
| Feb. | 106.0 | 122.1 | 107.7 | 116.6 | 94.6 | 91.8 | 91.9 | 88.9 | 90.4 | 99.0 | 48.9 | 59.2 | |
| Mar. | 98.0 | 90.8 | 106.8 | 108.6 | 97.0 | 99.1 | 96.0 | 95.0 | 89.6 | 97.4 | 49.4 | 54.9 | |
| Apr. | 100.7 | 88.3 | 100.2 | 89.2 | 100.6 | 104.6 | 99.6 | 100.5 | 97.6 | 96.7 | 90.6 | 98.9 | |
| May | 103.7 | 99.0 | 96.6 | 91.9 | 100.8 | 104.6 | 104.1 | 107.1 | 93.9 | 92.4 | 62.0 | 71.2 | |
| June | 92.9 | 80.7 | 94.7 | 90.0 | 103.8 | 105.6 | 106.6 | 110.5 | 104.1 | 99.4 | 76.6 | 71.9 | |
| July | 83.2 | 64.7 | 94.1 | 85.6 | 101.5 | 99.0 | 104.7 | 104.7 | 106.0 | 100.7 | 126.8 | 109.2 | |
| Aug. | 91.1 | 78.4 | 95.7 | 92.8 | 103.2 | 100.1 | 106.7 | 110.3 | 113.2 | 104.7 | 134.8 | 180.1 | |
| Sept. | 101.9 | 103.8 | 97.2 | 98.6 | 102.1 | 102.0 | 106.6 | 109.8 | 108.9 | 110.7 | 210.1 | 207.9 | |
| Oct. | 106.1 | 133.9 | 98.8 | 106.8 | 101.9 | 103.1 | 103.6 | 105.8 | 107.9 | 100.1 | 143.3 | 134.5 | |
| Nov. | 104.0 | 100.5 | 101.0 | 105.0 | 103.0 | 102.2 | 98.6 | 96.0 | 101.1 | 103.8 | 95.1 | 91.6 | |
| Dec. | 107.1 | 137.2 | 101.4 | 108.2 | 98.5 | 99.7 | 90.1 | 85.4 | 97.0 | 102.1 | 61.3 | 63.4 | |
| Avg. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |
| 1930 | | | | | | | | | | | | | |
| Jan. | 102.1 | 105.8 | 102.5 | 101.4 | 95.7 | 92.7 | 79.6 | 71.9 | 92.7 | 94.0 | 46.1 | 50.3 | |
| Feb. | 106.9 | 121.5 | 102.4 | 102.1 | 92.3 | 92.5 | 79.8 | 73.5 | 90.8 | 88.6 | 45.7 | 51.5 | |
| Mar. | 82.6 | 78.5 | 98.6 | 86.4 | 90.9 | 90.8 | 83.0 | 80.0 | 89.3 | 91.3 | 49.7 | 50.8 | |
| Apr. | 84.1 | 75.0 | 94.4 | 81.7 | 89.3 | 88.3 | 87.4 | 85.4 | 86.8 | 86.6 | 74.8 | 72.6 | |
| May | 93.8 | 98.8 | 90.4 | 77.5 | 87.5 | 85.6 | 90.8 | 90.2 | 89.8 | 85.4 | 65.7 | 66.9 | |
| June | 90.8 | 94.3 | 88.4 | 75.6 | 84.6 | 81.6 | 90.3 | 90.9 | 90.2 | 87.1 | 83.0 | 81.5 | |
| July | 91.6 | 84.0 | 88.0 | 68.9 | 80.5 | 71.9 | 89.9 | 85.5 | 89.9 | 88.5 | 126.3 | 112.7 | |
| Aug. | 80.2 | 78.8 | 89.2 | 71.1 | 79.0 | 71.0 | 89.3 | 85.8 | 87.7 | 86.0 | 185.7 | 172.0 | |
| Sept. | 93.8 | 91.6 | 90.5 | 74.9 | 78.1 | 69.9 | 87.7 | 82.5 | 85.0 | 84.0 | 246.6 | 214.8 | |
| Oct. | 99.0 | 117.2 | 91.8 | 79.4 | 77.2 | 68.6 | 84.7 | 79.3 | 85.2 | 82.6 | 164.7 | 140.0 | |
| Nov. | 97.2 | 98.0 | 92.5 | 79.1 | 72.8 | 63.4 | 78.3 | 66.8 | 83.6 | 80.0 | 96.7 | 82.9 | |
| Dec. | 99.1 | 100.0 | 92.5 | 77.7 | 70.1 | 59.9 | 70.2 | 59.9 | 77.4 | 77.2 | 61.6 | 57.4 | |
| Avg. | 93.4 | 95.3 | 93.4 | 81.3 | 83.2 | 78.0 | 84.3 | 79.3 | 87.4 | 85.9 | 103.9 | 96.1 | |
| 1931 | | | | | | | | | | | | | |
| Jan. | 90.6 | 89.3 | 93.9 | 73.3 | 68.3 | 55.0 | 64.4 | 50.4 | 74.8 | 71.5 | 48.9 | 46.1 | |
| Feb. | 89.5 | 101.9 | 91.5 | 68.3 | 65.3 | 54.6 | 66.6 | 54.4 | 73.2 | 70.0 | 48.3 | 48.6 | |
| Mar. | 82.0 | 71.3 | 88.8 | 65.2 | 63.5 | 52.8 | 70.0 | 58.2 | 72.2 | 73.2 | 53.0 | 50.3 | |
| Apr. | 85.2 | 75.2 | 85.9 | 58.6 | 63.9 | 51.4 | 76.1 | 62.6 | 69.8 | 66.3 | 59.6 | 57.1 | |

TABLE V. (Continued) EMPLOYMENT AND PAYROLLS IN NON-MANUFACTURING INDUSTRIES

| (United States Bureau of Labor Statistics) | | | | | | | | | | | | Base: 1929 Monthly Average - 100 Percent | |
|--|-----------------------|-------|----------------------|-------|--------------------|-------|-------|-------|-------|-------|--------|--|--|
| 1929 | Telephone & Telegraph | | Power, Light & Water | | Electric Railroads | | Trade | | | | Hotels | | |
| | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | Emp. | Pay. | |
| Jan. | 94.3 | 94.5 | 92.9 | 91.7 | 99.7 | 98.7 | 97.7 | 96.7 | 99.2 | 99.0 | 97.1 | 98.5 | |
| Feb. | 95.3 | 93.0 | 92.6 | 91.8 | 99.1 | 97.6 | 96.9 | 96.4 | 94.6 | 94.5 | 99.8 | 102.0 | |
| Mar. | 96.5 | 98.7 | 92.8 | 94.5 | 97.0 | 98.0 | 97.3 | 98.5 | 96.2 | 96.1 | 100.9 | 103.4 | |
| Apr. | 97.8 | 98.3 | 95.9 | 95.5 | 98.5 | 99.5 | 97.9 | 97.8 | 95.5 | 96.0 | 99.7 | 100.6 | |
| May | 100.4 | 99.4 | 98.4 | 98.1 | 100.4 | 101.0 | 99.0 | 99.0 | 97.3 | 97.1 | 98.1 | 98.9 | |
| June | 101.5 | 100.0 | 100.7 | 100.4 | 101.2 | 101.7 | 99.2 | 98.6 | 97.4 | 98.6 | 99.3 | 98.7 | |
| July | 102.6 | 104.1 | 103.2 | 102.3 | 102.2 | 101.9 | 100.4 | 100.5 | 93.6 | 95.9 | 101.1 | 99.8 | |
| Aug. | 103.7 | 101.8 | 105.4 | 103.8 | 102.2 | 102.0 | 101.3 | 100.0 | 93.6 | 95.2 | 102.6 | 99.4 | |
| Sept. | 102.5 | 100.4 | 105.5 | 106.6 | 101.4 | 101.5 | 101.9 | 103.3 | 97.6 | 99.2 | 102.8 | 100.2 | |
| Oct. | 101.9 | 105.1 | 105.7 | 106.0 | 100.5 | 100.0 | 102.9 | 102.7 | 101.7 | 102.6 | 100.6 | 100.2 | |
| Nov. | 101.9 | 101.2 | 104.7 | 104.1 | 99.4 | 98.4 | 102.9 | 101.9 | 106.7 | 105.2 | 100.0 | 99.8 | |
| Dec. | 101.8 | 103.9 | 102.5 | 105.8 | 98.3 | 99.8 | 102.6 | 104.7 | 120.2 | 120.6 | 97.7 | 98.9 | |
| Avg. | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |
| 1930 | | | | | | | | | | | | | |
| Jan. | 101.6 | 105.1 | 99.6 | 99.7 | 97.1 | 97.8 | 100.0 | 100.0 | 98.9 | 99.7 | 100.4 | 100.3 | |
| Feb. | 100.2 | 101.9 | 98.8 | 100.4 | 95.1 | 95.7 | 98.5 | 98.3 | 94.4 | 96.0 | 102.4 | 103.8 | |
| Mar. | 99.4 | 105.8 | 99.7 | 102.1 | 94.4 | 95.4 | 97.7 | 99.7 | 93.9 | 95.5 | 102.4 | 104.4 | |
| Apr. | 98.9 | 103.4 | 100.7 | 102.6 | 95.2 | 97.1 | 97.3 | 97.9 | 97.3 | 97.5 | 100.1 | 100.3 | |
| May | 99.7 | 103.2 | 103.4 | 104.5 | 95.2 | 96.0 | 96.8 | 97.4 | 96.7 | 97.3 | 98.0 | 98.4 | |
| June | 99.8 | 103.4 | 104.6 | 107.8 | 94.8 | 97.0 | 96.5 | 98.6 | 93.9 | 96.8 | 98.0 | 98.1 | |
| July | 100.0 | 106.6 | 105.9 | 106.7 | 95.3 | 95.6 | 96.0 | 96.0 | 89.0 | 91.7 | 101.3 | 99.8 | |
| Aug. | 98.8 | 102.5 | 106.4 | 106.6 | 92.9 | 92.1 | 95.0 | 93.6 | 85.6 | 87.6 | 101.5 | 98.6 | |
| Sept. | 96.8 | 102.2 | 105.2 | 106.1 | 91.8 | 90.5 | 94.8 | 93.6 | 92.0 | 92.4 | 100.1 | 97.1 | |
| Oct. | 94.5 | 100.9 | 104.8 | 105.6 | 91.0 | 88.9 | 94.2 | 92.9 | 95.5 | 95.1 | 97.5 | 95.5 | |
| Nov. | 93.0 | 97.9 | 103.4 | 103.7 | 89.3 | 87.7 | 92.6 | 91.0 | 98.4 | 96.8 | 95.2 | 93.6 | |
| Dec. | 91.6 | 101.3 | 103.2 | 106.3 | 88.8 | 88.6 | 92.0 | 91.3 | 115.1 | 107.7 | 93.5 | 91.5 | |
| Avg. | 97.9 | 102.9 | 103.0 | 104.3 | 93.4 | 93.5 | 96.0 | 95.9 | 95.9 | 96.2 | 99.2 | 98.5 | |
| 1931 | | | | | | | | | | | | | |
| Jan. | 90.5 | 96.3 | 99.2 | 98.6 | 86.9 | 85.6 | 89.5 | 87.5 | 90.0 | 89.4 | 95.0 | 91.0 | |
| Feb. | 89.2 | 94.8 | 97.8 | 99.7 | 86.6 | 87.1 | 88.2 | 88.4 | 87.1 | 86.7 | 96.8 | 93.7 | |
| Mar. | 88.6 | 97.9 | 96.7 | 102.4 | 86.4 | 88.1 | 87.4 | 89.1 | 87.8 | 87.5 | 96.8 | 93.4 | |
| Apr. | 88.1 | 95.0 | 97.1 | 97.6 | 86.8 | 86.6 | 87.4 | 85.2 | 90.1 | 88.3 | 95.9 | 89.9 | |

TABLE VI.

WAGE EARNERS' COST OF LIVING IN THE UNITED STATES

| Base: 1923-1925 Average - 100 Percent | | | | | |
|---------------------------------------|-------|----------------|------|----------------|------|
| Average for Year | | 1930 by Months | | 1931 by Months | |
| 1919 | 105.7 | Jan. | 99.1 | Jan. | 92.5 |
| 1920 | 123.0 | Feb. | 98.7 | Feb. | 90.3 |
| 1921 | 105.5 | Mar. | 97.8 | Mar. | 89.8 |
| 1922 | 97.7 | Apr. | 98.1 | Apr. | 88.8 |
| 1923 | 99.4 | May | 97.7 | | |
| 1924 | 99.3 | June | 97.0 | | |
| 1925 | 101.3 | July | 96.0 | | |
| 1926 | 101.9 | Aug. | 95.6 | | |
| 1927 | 100.3 | Sept. | 96.2 | | |
| 1928 | 99.6 | Oct. | 95.8 | | |
| 1929 | 99.8 | Nov. | 94.7 | | |
| 1930 | 96.7 | Dec. | 93.6 | | |

REAL * INCOME OF FACTORY WORKERS IN THE UNITED STATES

| Base: 1923-1925 Average - 100 Percent | | | | | |
|---------------------------------------|-------|----------------|-------|----------------|------|
| Average for Year | | 1930 by Months | | 1931 by Months | |
| 1919 | 92.8 | Jan. | 95.2 | Jan. | 74.0 |
| 1920 | 96.0 | Feb. | 99.0 | Feb. | 81.2 |
| 1921 | 72.8 | Mar. | 100.3 | Mar. | 83.5 |
| 1922 | 83.0 | Apr. | 99.0 | Apr. | 82.9 |
| 1923 | 104.0 | May | 96.7 | | |
| 1924 | 96.4 | June | 93.5 | | |
| 1925 | 99.6 | July | 86.0 | | |
| 1926 | 102.3 | Aug. | 85.5 | | |
| 1927 | 101.8 | Sept. | 86.4 | | |
| 1928 | 102.2 | Oct. | 84.4 | | |
| 1929 | 107.9 | Nov. | 79.4 | | |
| 1930 | 90.4 | Dec. | 78.8 | | |

* See Table I for money income of factory workers, i.e., amount of factory payrolls

SUPPLEMENTARY NOTE ON THE UNEMPLOYMENT CENSUSES, AND THE GENERAL PROBLEM OF UNEMPLOYMENT VOLUME, IN THE UNITED STATES.

The volume of unemployment in the United States cannot be measured with that degree of precision which has been attained in some European countries. In fact, the author's opinion is that the precision reached in this country is not even satisfactory as yet - although further progress in that direction has been made in recent years. Space limitations prevent us from going into any lengthy critique of the various unemployment estimates recently made for the United States; but we are inclined to believe that the most notable recent work has been done by the United States Department of Commerce, which arrived (by two largely independent methods) at estimates lying within the range of 4,500,000 to 5,000,000 unemployed as of December 1930. The same organization has also published an estimate of approximately 6,000,000 for January 1931. We do not, however, subscribe to these figures - nor indeed to any other of the diverse ones advanced by various organizations and individuals; for, in any problem of estimation where so many of the constituents are not definitely ascertainable, and must be settled by conjectural assumptions, there would seem to be so large a probable error as to render futile much of the controversy as to how much unemployment actually existed at various times in this country. On this particular problem, we are "agnostic".

In April 1930, the federal government took a Census of Unemployment in connection with the Census of Population; this is the fourth federal census of unemployment - others having been taken in 1890, 1900, and 1910, although the one last-named was never tabulated. A report on unemployment was made by the Department of Commerce for nineteen cities as of January 1931, to throw light on unemployment changes since the nation-wide canvass of April 1930. Most estimators have taken the April 1930 Census of Unemployment as a point of departure for their calculations.

Various objections, some justified and some unsound, have been raised in regard to the Census of Unemployment - the adequacy of basic definition of unemployment, the procedure used for framing it in the schedule, the possibilities of overcounting or undercounting in the canvass, etc., etc. But the time will not be ripe for any critique that can be called conclusive until the final printed results become available for analysis in complete detail - for example, on the distribution and rates of unemployment classified by industries and by occupations. Indeed, it may perhaps be impossible to do so even then, in really conclusive fashion, because the extreme paucity of really pertinent data from other sources will limit any critique primarily to the internal evidence in the census itself.

Conservative students of the unemployment problem have usually held that, under existing institutions, no satisfactory estimate of unemployment volume could be made in this country, unless by census methods; but that of course does not mean that even a census will necessarily succeed in accomplishing the purpose. No census on any subject ever yields a fully accurate and dependable count, even if the unit counted is susceptible to fairly ready definition and easily comprehensible to the

UNITED STATES

intelligence of the average census enumerator. But no definition of economic unemployment can be completely sound and at the same time completely simple; and even if it be fully understood by all the enumerators, there is question whether their results could be considered entirely trustworthy. Such factors as the method of remunerating enumerators might conceivably affect the completeness of census coverage. The general problem of appraising censuses and other estimates of unemployment volume should, for the time being, be held in abeyance.

SYNOPSIS D'UN RAPPORT SUR L'EMPLOI ET LES REVENUS DU TRAVAIL AUX ÉTATS-UNIS 1910—1931 PAR LE DR. W. A. BERRIDGE, METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK.

INTRODUCTION.

Il n'existe pas aux États-Unis de données complètes et dignes de confiance pouvant renseigner sur le nombre de personnes réellement occupées - parmi vers 49 millions normalement pourvues d'un emploi rémunéré - ni sur leur revenu total. C'est pourquoi les comparaisons à dates éloignées présentées dans ce rapport ont été limitées aux travailleurs des industries manufacturières et des chemins de fer, les premiers constituant d'ailleurs numériquement la plus importante des catégories d'ouvriers aux États-Unis; par contre, des comparaisons à dates rapprochées ont été présentées pour certaines catégories au sujet desquelles des données détaillées ont été établies ces dernières années.

APERÇU DE L'ACCROISSEMENT DU NOMBRE D'OUVRIERS OCCUPÉS DANS LES INDUSTRIES MANUFACTURIÈRES AU COURS DU XX^e SIÈCLE.

Nous avons cité ici des nombres-indices basés sur les bordereaux de salaires et extraits des "Censuses of Manufactures" des États-Unis; il font voir que le nombre des travailleurs des industries manufacturières a presque doublé de 1899 à 1929, le taux d'accroissement le plus élevé se plaçant au début de cette période de trente ans.

BORDEREAUX DE SALAIRES DANS LES INDUSTRIES MANUFACTURIÈRES ET LES CHEMINS DE FER, DEPUIS LA GUERRE, PAR ANNÉE.

Les données concernant la période 1919-30 sont présentées par an pour les travailleurs des industries manufacturières et des chemins de fer, ceux des premiers se divisant en salaires et traitements.

NOMBRE DE TRAVAILLEURS EMPLOYÉS DANS LES INDUSTRIES MANUFACTURIÈRES ET LEUR REVENU GLOBAL, PAR MOIS.

Des indices mensuels donnant le nombre de travailleurs em-

SYNOPSIS

ployés dans les industries manufacturières et leur revenu global en monnaie ont été établis par le "Federal Reserve Board" pour la période actuelle d'après-guerre; nous les avons utilisés à cause de leur supériorité sur les évaluations d'autres auteurs au point de vue de leur base statistique. De plus, ces indices sont présentés après élimination des variations saisonnières; ils permettent ainsi de suivre plus facilement les variations cycliques du nombre de travailleurs des industries manufacturières. En outre, nous nous sommes préoccupé de faire ressortir les variations saisonnières du nombre de ces travailleurs et de leur revenu global.

NOMBRE DE TRAVAILLEURS ENGAGÉS ET NOMBRE DE TRAVAILLEURS QUITTANT LEUR EMPLOI DANS LES INDUSTRIES MANUFACTURIÈRES AUX ÉTATS-UNIS.

Ces indices jettent quelque lumière sur les conditions du marché intérieur du travail durant les années d'après-guerre, notamment sur l'embauchage et sur les différentes modalités de départ des ouvriers, volontairement, par réduction de personnel ou par congédiement.

L'EMPLOI ET LA RÉMUNÉRATION DU PERSONNEL DES CHEMINS DE FER DEPUIS 1922. PAR MOIS.

Les tableaux de l'"Interstate Commerce Commission" basés sur les bordereaux de salaires de la première catégorie des chemins de fer à vapeur sont présentés sous forme de nombres-indices, de manière à faire ressortir les effets des facteurs cycliques et technologiques dans ce genre d'emploi, ce qui permet de dégager également ses caractéristiques saisonnières.

NOMBRE DE TRAVAILLEURS OCCUPÉS DANS D'AUTRES BRANCHES D'ACTIVITÉ.

En dehors des branches d'activité examinées ci-dessus - industries manufacturières et chemins de fer - les données relatives à l'emploi ne sont recueillies, aux États-Unis, que depuis fort peu de temps. Des indices mensuels établis par le "Bureau

SYNOPSIS

of Labor Statistics" des Etats-Unis pour un certain nombre de catégories d'emploi, depuis janvier 1929, sont discutés dans ce rapport. Ils donnent tout au moins des indications très nettes sur les variations du nombre de travailleurs employés dans ces catégories pendant la dépression actuelle. Ces indices concernent, entre autres, le commerce, les hôtels, les services publics et les diverses industries extractives.

DONNÉES PARTICULIÈRES POUR SEPT CATÉGORIES D'EMPLOIS INTELLECTUELS.

Nous avons présenté ici, essentiellement, les données recueillies par la "Metropolitan Life Insurance Company" relatives au nombre et au traitement global des personnes occupées dans plusieurs branches d'activité intellectuelle, telles que banques, compagnies d'assurance, hopitaux, agences de publicité. A l'exception de ces catégories, très peu de données positives sur les emplois de ce genre ont été recueillies aux Etats-Unis.

REVENU EN MONNAIE ET POUVOIR D'ACHAT.

Le revenu mensuel global des ouvriers des industries manufacturières a été calculé en éliminant les variations du coût de la vie de façon à pouvoir suivre les fluctuations du revenu réel (ou pouvoir d'achat en marchandises) dont cette classe de travailleurs a disposé depuis la guerre.

INDUSTRIES TEXTILES ET DES PRODUITS DU TEXTILE.

INDUSTRIES DU FER, DE L'ACIER ET DE LEURS PRODUITS.

INDUSTRIES MÉCANIQUES.

Nous avons décrit certaines caractéristiques des fluctuations du nombre de travailleurs employés dans ces industries ainsi que du montant global des bordereaux de salaires qui s'y rapportent.

SYNOPSIS DES BERICHTES ÜBER BESCHÄFTIGUNG UND ARBEITSEINKOMMEN IN DEN VEREINIGTEN STAATEN 1910-1931 VON DR. W. A. BERRIDGE, METROPOLITAN LIFE INSURANCE COMPANY, NEW YORK, U. S. A.

EINFUEHRUNG.

Zuverlässige und umfassende Data sind über die Gesamtbeschäftigung und das Gesamteinkommen der ungefähr 49,000,000 Menschen, welche sich jetzt in den Vereinigten Staaten gewinnbringender Beschäftigung widmen, nicht verfügbar. Deshalb sind in dieser Abhandlung die auf längere Zeit sich beziehenden Vergleiche auf Beschäftigte in Fabriken und bei den Eisenbahnen beschränkt, von denen die erstere numerisch die grösste einzelne Gruppe von Arbeitern in diesem Lande darstellt. Vergleiche über eine kurze Zeit werden dagegen für bestimmte Gruppen aufgeführt, über welche Musterangaben in den letzten Jahren verfügbar sind.

SKIZZE DES WACHSTUMS IN DER FABRIKBESCHAFTIGUNG WAEHREND DES GEGENWAERTIGEN JAHRHUNDERTS.

Indexzahlen, basiert auf den Angaben der Lohnlisten, welche den Fabrik-Steuerlisten der Vereinigten Staaten entnommen sind, werden hier zitiert um zu zeigen, wie sich die Zahl der Fabrikbeschäftigten von 1899 bis 1929 fast verdoppelt hat, und zwar fand der grössere Teil dieses Wachstums während des früheren Teils dieser 30-jährigen Periode statt.

FABRIK- UND EISENBAHN-LOHNLISTEN SEIT DEM KRIEGE, JAHRESWEISE.

Für die Periode 1919-1930 sind die Angaben über das Gesamteinkommen der Fabrik- und Eisenbahnbeschäftigten jahresweise gemacht. Hiervon ist das Ersterwähnte wieder in Löhne und Gehälter geteilt.

BESCHAEFTIGUNG UND EINKOMMEN VON FABRIKARBEITERN, MONATSWEISE.

Monatliche Indexzahlen von wirklicher Nachkriegsbeschäftigung und Geldeinkommen von Fabrikarbeitern in den Ver-

SYNOPSIS

einigten Staaten sind durch das Federal Reserve Board berechnet worden und werden, da sie in Bezug auf statistische Richtigkeit den Berechnungen anderer Kompilatoren überlegen sind, in dieser Schrift benutzt. Diese Indexzahlen werden auch unter Beseitigung der saisonmässigen Variationen aufgeführt, um mit grösster Klarheit die Bahn zyklischer Veränderungen in der Fabrikbeschäftigung zu kennzeichnen. Ausserdem wird dem einige Aufmerksamkeit gewidmet, was nur saisonmässig charakteristisch für Gesamtbeschäftigung und -Einkommen der Fabrikarbeiter ist.

FABRIKARBEIT-UMSATZ IN DEN VEREINIGTEN STAATEN.

Fabrikarbeit-Umsatzzahlen sind gefunden, um noch mehr Licht auf die internen Bedingungen innerhalb des Nachkriegs-Arbeitsmarktes zu werfen: Das Mieten von Arbeitskraft und die einzelnen Arten der Aussonderung aus der Lohnliste - freiwilliges Aufgeben, Arbeitsniederlegungen und Entlassungen.

BESCHAEFTIGUNG UND VERGÜETUNG FUER BESCHAEFTIGTE BEI DER EISENBAHN SEIT 1922, MONATSWEISE.

Die Aufstellungen der zwischenstaatlichen Handelskommission über Lohnlistenangaben von Klasse I der Dampf-Eisenbahnen werden in Indexzahlenform, monatsweise, gegeben, um sowohl die Wirkungen der zyklischen und technologischen Faktoren bei dieser Art von Beschäftigung darzulegen, als auch um die saisonmässigen Merkmale zu enthüllen.

ANDERE NICHT-FABRIKBESCHAEFTIGTE.

Die Sammlung von nationalen Angaben über andere, Nicht-Fabrikbeschäftigungen in den Vereinigten Staaten ist nur sehr jungen Ursprunges. Die durch das Vereinigte Staaten-Büro für Arbeits-Statistiken für eine Anzahl solcher Beschäftigungszweige berechneten, monatlichen Indexzahlen, werden in dieser Schrift für die Zeit von Januar 1929 bis heute erörtert, wodurch wenigstens für die jetzige Depression einiges Beweismaterial über das Verhalten dieser Beschäftigungsarten ge-

SYNOPSIS

geben wird. Diese Indexzahlen beziehen sich unter anderen Geschäftszweigen auf den Handel, Hotels, öffentliche Einrichtungen und die mannigfaltigen Bergbau-Industrien.

BESONDERE ANGABEN UEBER SIEBEN "WEISSE-KRAGEN"-BESCHAEFTIGUNGEN.

In der Hauptsache werden hier die von der Metropolitan-Lebensversicherungs-Gesellschaft erhaltenen Angaben aufgeführt über Beschäftigung und Gehaltslisten einer bestimmten Anzahl "Weisser-Kragen"-Zweige, wie Banken, Versicherungsgesellschaften, Hospitale und Annoncen-Expeditionen. Mit Ausnahme dieser Zahlen sind nur sehr wenig positive Data über solche Beschäftigungszweige in den Vereinigten Staaten gesammelt worden.

GELDEINKOMMEN IM VERGLEICH MIT DER KAUFKRAFT.

Das monatliche Gesamteinkommen von Fabrikarbeitern ist wegen Veränderungen der Lebenskosten nach den Kleinhandelspreisen verringert worden, um den Lauf der Schwankungen im "Realeinkommen" (oder in der Güterkaufkraft) zu zeigen, welches diese Klasse von Angestellten seit dem Kriege empfangen hat.

HERSTELLUNG VON TEXTILIEN UND TEXTILPRODUKTEN.

HERSTELLUNG VON EISEN UND STAHL UND IHREN PRODUKTEN.

HERSTELLUNG VON MASCHINEN UND ENTSPRECHENDER AUSRÜSTUNG.

Hier werden bestimmte Charakteristiken über das Verhalten von Beschäftigung und Lohnlisten-Auszahlungen in diesen Industrien gegeben.

EMPLOYMENT AND UNEMPLOYMENT IN PRE-WAR
AND SOVIET RUSSIA BY SUSAN M. KINGSBURY, PH.D.
AND MILDRED FAIRCHILD, PH.D., BRYN MAWR COLLEGE, BRYN
MAWR, U. S. A.

| | Page |
|---|------|
| LIST OF TABLES | 329 |
| LIST OF CHARTS | 331 |
| FOREWORD | 333 |
| INTRODUCTION | 335 |
| CHAPTER I. POPULATION | 341 |
| CHAPTER II. EMPLOYMENT | 343 |
| CHAPTER III. UNEMPLOYMENT | 355 |
| CHAPTER IV. PRODUCTION | 361 |
| CHAPTER V. PRODUCTIVITY OF THE WORKER | 383 |
| CHAPTER VI. WAGES | 391 |
| CHAPTER VII. STANDARDS OF LIVING | 403 |
| CHAPTER VIII. CONCLUSION | 421 |
| APPENDIX. | |
| SOURCES OF DATA | 425 |
| INDEXES USED IN THE REPORT | 435 |

LIST OF TABLES.

| | Page |
|---|------|
| I Population, Pre-war Russia and U. S. S. R., 1914—1930 | 341 |
| II Number of Workers in Large Scale Industry, Pre-war Russia and U. S. S. R. Yearly Average in Thousands. Years 1913 and 1923/24—1929/30 | 348 |
| III Number of Employed Persons, Pre-war Russia and U.S.S.R. Yearly Average in Thousands. Years 1913 and 1922/23—1929/30 | 349 |
| IV Employment in Large Scale Industry, Pre-war Russia and U. S. S. R., Years 1910—1923 | 350 |
| V Average Number of Workers in Large Scale Industry, U. S. S. R., 1928/29—1929/30, monthly (without Junior Personnel) | 352 |
| VI Unemployed on Live Register, U. S. S. R. Years 1920/21—1929/30 | 359 |
| VII Gross Production of Large Scale and Large Scale Government Industry, Pre-war Russia and U. S. S. R. In Million Roubles, Producers' Prices of 1913. Years 1913 and 1923/24—1929/30 | 367 |
| VIII Gross Production of Large Scale Industry, Pre-war Russia and U.S.S.R. In Quantity. Years 1913 and 1924/25 to 1929/30 | 368 |
| IX Gross Production of Planned National Economy, U. S. S. R. In Million Roubles, Producers' Prices of 1926/27. Years 1925/26—1929/30 | 370 |
| X Production of Large Scale Industry, Pre-war Russia and U. S. S. R. In Quantity. Years 1913—1922/23 | 372 |
| XI Gross Production Large Scale Industry, U. S. S. R. In Thousand Roubles. At Average Wholesale Selling Prices of 1926/27, 1928/29—1929/30, by months. | 374 |
| XII Gross Production of Agriculture, Pre-war Russia and U. S. S. R. In Million Roubles. Producers' Prices of 1913. Years 1913 and 1923/24—1929/30 | 376 |
| XIII Gross Production of Agriculture, Pre-war Russia and U. S. S. R. In Quantity. Years 1913 and 1923/24—1929/30 | 377 |
| XIV Gross Production of Agriculture, U.S.S.R. In Million Roubles. Producers' Prices of 1926/27. Years 1925/26—1929/30. | 378 |
| XV Railway Operations, Pre-war Russia and U. S. S. R. Year 1913 and 1925—1931 | 379 |

LIST OF TABLES

| | Page |
|--|------|
| XVI Capacity of Power Plants, Pre-war Russia and U. S. S. R. In Thousand kw. Years 1913 and 1924/25—1929/30 | 380 |
| XVII Output of Electric Current, Pre-war Russia and U. S. S. R. Years 1913 and 1924/25—1929/30 | 380 |
| XVIII Gross Production of the National Economy of the Soviet Union. In Billion Roubles at Pre-war Prices. Years 1913—1920 and 1920/21—1928/29 | 381 |
| XIX Average Yearly Production per Worker, U. S. S. R. In Roubles, Producers' Prices of 1913. Years 1923/24—1929/30 | 389 |
| XX Average Monthly Real Wages in Large Scale Industry, Pre- war Russia and U. S. S. R. In Currency of Corresponding Year. Years 1913 and 1923/24—1928/29 | 397 |
| XXI Average Monthly Real Wages in Large Scale Industry, Pre-war Russia and U. S. S. R. In Roubles. Years 1913 and 1923/24—1929/30 | 398 |
| XXII Average Yearly Nominal Wages of Employed Persons for Principal Categories, U. S. S. R. In Roubles. Years 1922/24—1929/30 | 399 |
| XXIII Average Yearly Real Wages of Employed Persons for Prin- cipal Categories, U. S. S. R. In Roubles. Years 1922/23—1929/30 | 400 |
| XXIV Price Indexes, U. S. S. R. Years 1917—1930 | 401 |
| XXV Production of Agriculture, Marketable Portion, Non-Village Markets, Pre-war Russia and U. S. S. R. In Million Roubles. Producers' Prices of 1913. Years 1913 and 1923/24—1929/30 | 411 |
| XXVI Exports from and Imports into Russia and the Soviet Union, 1913—1930. At Current Prices of Each Year | 412 |
| XXVII Exports and Imports, Pre-war and Soviet Russia, 1910— 1923. In Million Roubles | 413 |
| XXVIII Major Exports from Pre-war Russia and the U. S. S. R. Values at Current Prices. Years 1913 and 1928/29—1929/30 | 414 |
| XXIX Russian and Soviet Imports by Commodity Groups, 1913, 1928/29 and 1929/30 | 415 |
| XXX Export and Import, Pre-war and Soviet Russia, in Principal Groups, 1910—1917. In Million Roubles | 416 |
| XXXI Social Insurance, U. S. S. R. Currency, where given, for Corresponding Year. Years 1925/26—1929/30 | 417 |

LIST OF CHARTS

| | Page |
|--|------|
| XXXII Social Insurance Budget. Expenses U. S. S. R. In Currency of Corresponding Years. Years 1927/28—1929/30 | 418 |
| XXXIII Housing Construction, U. S. S. R. Years 1927/28—1929/30 .. | 419 |
| XXXIV Construction of Workmen's Housing - Methods of Financing, U. S. S. R. In Million Roubles. Currency of Corresponding Years. Years 1924/25—1926/27 | 420 |

TABLES IN APPENDIX

| | |
|--|-----|
| I Price Indexes. Yearly Average. Years 1923/24—1926/27 .. | 437 |
| II Price Indexes. Yearly Average. Years 1925/26—1929/30 .. | 437 |

LIST OF CHARTS

| | |
|--|-----|
| I Employed Persons, Pre-war Russia and U. S. S. R. (Agriculture, Transportation, Construction, Census and Non-Census Industries) 1913 and 1922/23 to 1929/30 | 345 |
| II Unemployment on Live Register, U. S. S. R. 1921—1930 | 358 |
| III Gross Production of Large Scale Industry, Pre-war Russia and U. S. S. R. (Coal, Oil, Leather, Chemical, Metal, Textile, Total.) (In Roubles. Prices of 1913.) 1913 and 1923/24 to 1929/30. Logarithmic Scale | 365 |
| IV Average Yearly Production per Worker, Pre-war Russia and U. S. S. R. (Chemical, Leather and Shoe, Cotton, Metal, Coal, Average for all. In Roubles. Prices of 1913.) 1913 and 1923/24—1929/30 | 387 |
| V Average Monthly Real Wages, Pre-war Russia and U. S. S. R., Large Scale Industry (Metal, Coal, Oil, Leather, Chemical, Textile, Food, Average for all. In Roubles.) 1913 and 1923/24—1929/30 | 395 |
| VI Standards of Living, Pre-war Russia and U. S. S. R. (Agriculture, Industry, Exports, Imports, Population, Wage). (In Prices of 1913.) 1913 and 1922/23—1929/30. Logarithmic Scale .. | 409 |
| VII Summary Chart, Pre-war Russia and U. S. S. R. (Gross Industrial Production, Population, Employment, Productivity of Worker, Unemployment, Yearly Wage) 1913 and 1920/31—1929/30. Logarithmic Scale | 422 |

FOREWORD BY THE AUTHORS.

In presenting this report the writers wish to acknowledge the assistance of all those whose cooperation and time have made possible its preparation. For the loan of material and advice in its use, we are indebted primarily to Amtorg, the American Russian Trading Organization, New York, to the Soviet Information Bureau, Washington, D.C., to the United States Department of State, to the Library of Congress, Washington, D.C., and to the New York Public Library. We wish particularly to express our appreciation to the Research and Information Division of Amtorg for their very great assistance and courtesy.

To Marthe Andrée Miskolczy who, as a graduate student at Bryn Mawr College in connection with a seminary in Industrial Organization given in the Carola Woerishoffer Graduate Department of Social Economy and Social Research, aided in gathering the data used in the report, particularly those on Pre-war Russia, we wish to express our obligation and gratitude. And to May Smitt, whose tireless energy in translation and secretarial assistance formed the foundation for the work, we are deeply indebted.

Bryn Mawr, July 1931.

EMPLOYMENT AND UNEMPLOYMENT IN PRE-WAR AND SOVIET RUSSIA.

INTRODUCTION.

Russia during the years covered by this report, from 1913 to 1930, has passed through war, revolution, civil war, foreign intervention and reconstruction. Realization of these facts is essential to any understanding of the statistics for the period. And study of the statistics at once reveals an economic cataclysm.

The results have been two-fold: in the first place, the break down of the old political and economic order and disorganization of the entire people; in the second place, reorganization and a new economical and political system. The statistics themselves reveal both the disorganization and the reconstruction.

Moreover, the nature of the reconstruction is forced upon the attention at every step as the statistics for the period are surveyed. The new political economy is a socialistic economy and a planned economy. As the years have advanced these two major characteristics have increased in fact and in importance.

Briefly, the history of Soviet Russia has brought about five basic economic changes. In the order of their occurrence they are: 1. the nationalization of all land; 2. the nationalization of all banks (and forms of credit); 3. the nationalization of the major part of industry; 4. the "socialization" of a large part of the trade; 5. the "collectivization" of, to-date, about one half of the agriculture.

We have, then, a picture of government control and direction encompassing a very large proportion of industrial production. Practically all of basic industry, including transportation and mining, is in the hands of the government. Eighty percent of large scale industry and sixty one percent of all industry were operated by government trusts and corporations at the beginning of the fiscal year 1929/30. The industry not yet under government control directly is primarily the "kustar" or small handicraft production, amounting to twenty three percent of the total industry of the country at the beginning of the fiscal year

EMPLOYMENT AND UNEMPLOYMENT

1929/30.¹ The percent of industrial production under government control has increased unquestionably during the eighteen months since that date.

We have also a picture of government control over an increasing part of agricultural production. In the year 1929 four percent of the peasant households and twelve percent of the sown area of the Soviet Union were in collectivized farms.² During the year 1930, twenty percent of the gross agricultural production came from collectivized farms, and, it is expected, in 1931 to be thirty three percent, according to preliminary estimates. In addition, state farms operated directly by the government trusts in 1930 contributed 491 million roubles to a total agricultural production of fourteen billion (in prices of 1926/27) reported.³ Finally, we have a picture of the trade of the country passing rapidly, during the last two years especially, from private to cooperative and state control.

Of the total income of the Soviet Union, therefore, in 1927/28, 41.6 percent is reported from the government sector, 10.1 percent from the cooperative, and 48.3 percent from the private sector. In 1928/29 it was estimated that 42 percent came from the government, 11.3 percent from the cooperative and 46.7 percent from the private sectors. In 1929/30 it was expected that 61.7 percent of the total national income would come from government and cooperative sources.⁴

Government control of so large a proportion of the economic forces of the country has led directly to the second major characteristic - economic planning. Planning began in Soviet Russia in 1921 with the first plan for electrification initiated by Lenin in the midst of civil war and disorganization. It developed with the first general plan for industry as a whole prepared in 1924/25. It became famous throughout the world with the Five-Year Plan in 1928/29. It is understood that it has

¹ See Control Figures 1929/30, pp. 428-31 for basis of these percentages.

² Control Figures 1929/30, p. 555.

³ Planned Economy, December 1930, pp. 359-63.

⁴ Control Figures 1929/30, p. 34.

PRE-WAR AND SOVIET RUSSIA

become an integral part of the Soviet economic policy, with additional five-year, ten-year and twenty five-year plans being prepared at the present time.

Accompanying the picture of socialist and planned economy is another one, equally important. It consists of: 1. the progressive abolition of individual competition in production and trade; 2. the progressive abolition of private profit from the means of production; 3. the levelling of standards of living for the whole population. In the economic life of the Russian people these things cannot be over-estimated.

A new form of competition, certainly, has grown up between trusts, factories, collective farms and various groups, that of "socialistic emulation". But it is psychological rather than economic in its effect, that is, its function is to serve as an incentive to work, rather than as an economic control. One form only of the old economic competition, by present indications, will remain to the Russian people, that between the Soviet Union and the capitalistic countries. And that, also, is, within the nation, psychological more than economic in its effect. Economically, within the nation, it is of doubtful significance. Private profit, both psychologically and economically is decreasing in importance. With comparatively insignificant exceptions also, a single standard of living prevails over the entire country. Certainly the city worker lives better than the peasant, the intellectual and the Administration expert live better than the manual worker. But this differential, in comparison with other countries, is so slight and, in many cases, is so offset by other privileges that it is, broadly speaking, negligible. Communist policy, also, would seem more likely to reduce than to increase it, if ever practical and immediate issues cease to require its retention.

In surveying the period of Soviet reconstruction it must be remembered of course, that Russia is a country of vast territory and, according to most estimates, of large resources, newly opened, newly industrialized, rapidly developing. Russia before the war was, apparently, industrializing and at an increasing rate. Moreover, the tendency was apparently toward large scale industry, coming from the states' "proprietary" factories, formerly leased,

EMPLOYMENT AND UNEMPLOYMENT

and supplied with forced labor, and from the land owners' or "votchina" factories mostly connected with the exploitation of natural resources upon the estates and in earlier years worked by serf labor. In 1913, according to one source, there were 17,877 enterprises belonging to different branches of industry, employing a total of 2,319,577 workmen, from which 894 enterprises, that is, five percent of the total, employed 54 percent of the total number of workers.⁵

The concentration was especially strong in the metal industry where 50 percent of all the pig iron production of the country was centered in the hands of five large concerns of the South. One syndicate, also, controlled 80-100 percent of the iron-working industry, another, 90 percent of the copper output. Coal and oil showed similar organization. Tobacco, matches, sugar, yeast and railway works were all in great syndicates and a state monopoly was formed shortly before the war which controlled all spirits. State protectionism favored trustification although heavy subventions in certain instances also apparently stultified efficient and progressive operation.

Nevertheless, on the eve of the war, Russia was primarily an agricultural country. Forty eight percent of her national income came from agriculture in 1913 and six percent from forestry and fishing. Only slightly more than 22 percent came from industry.⁶

Soviet Russia, therefore, since the country is rich in natural resources, has a vast new field to open and a new opportunity to industrialize. In these things she is at the present time probably the pioneer nation of the world. The points to consider in this regard are: 1. her growth, certainly; but also 2. her rate of growth; 3. her stability of growth, that is the continuity at least; and 4. the cost to the population in hours of work, standards of living and security.

These conditions must all be kept in mind as we consider the statistical material in hand. The purpose of this report, first and last, is to reveal the status of employment and unemploy-

⁵ Voytinski, W. L.: *Die Welt in Zahlen*, Berlin, 1926, pp. 10-11.

⁶ Previous citation, p. 12.

PRE-WAR AND SOVIET RUSSIA

ment in Soviet Russia and to consider their causes and significance. In view of the peculiar circumstances, in Soviet Russia at least, the data in those fields will require those of other fields to support and elucidate them. They are incomplete without accompanying data on production, wages and standards of living.

The increase of employment and the decrease of unemployment, accompanying as it does, an increase in population, a small increase also in urban and, according to the *Control Figures*⁷ in proletarian, i. e. workers' population, needs a study of the development of production and of the productivity of the worker to make clear the forces controlling employment possibilities. In Soviet Russia the processes of reconstruction after war and revolution, of industrialization in a long backward and primarily agricultural nation, of rationalization in organization and technique of manufacture, have all combined to force into one decade a meteoric rise which is phenomenal.

What we shall consider, therefore, is data on employment and unemployment, certainly, but also on population, production, the productivity of the worker, wages and standards of living. Sections on each subject will follow in the order given.

The statistical data available from Russian and Soviet sources are all for the years from 1913 to 1930. Because of the peculiar circumstances these years in the last two decades are the most important. The shortage of data between 1910-1913 is of secondary importance, although the difference in the nature and the rate of the development along various lines between pre-war and Soviet Russia would be interesting. To be attempted at all, however, it should cover a longer period, and the attempt in any event would hardly be germane to the purpose of this study.

The pre-war and pre-revolution material, aside from various secondary sources, used in most cases for reference only, comes from the reports of factory inspection under the Tsarist regime, published for the years 1914 to 1917 by the Soviet authorities after 1920. The data from Soviet Russia come from various official publications.

⁷ *Control Figures*, 1929/30, p. 420.

EMPLOYMENT AND UNEMPLOYMENT

The series which are given, therefore, in most cases are for the years 1913, and 1923/24 to 1929/30. The latter years represent the Soviet fiscal year during the period of reconstruction. Series for the years between 1913 and 1923/24 will be given in supplementary form. Altogether the completeness of the data available, if one seeks them diligently, is extraordinary.⁸

Attention is called especially to the two periods in which the work is divided. For the purposes of this study, the important one is that of the reconstruction. In order to make possible comparisons both with the present and with pre-war development, data in values are given in fixed prices both of 1926/27 and of 1913.⁹ It should also be stated that figures from the Control Figures of 1929/30 are for planned national industry only, and therefore in totals, at least, about twenty percent lower than if they covered the entire census industry. Allowance should be made for this when reading the tables.

The series show, all of them, comparable trends. Between the year 1913 and the year 1923/24 one finds a great drop. The actual drop from 1913 to the years of lowest ebb, 1919 and 1920, was still greater, according to all the available evidence. Industrial production was probably not more than 20 percent of the pre-war production. The year 1923-24 was a year well within the reconstruction period therefore. And between 1923/24 and 1929/30 one finds on the whole a steady and rapid ascent.

⁸ See Appendix for full discussion of Sources used.

⁹ See Appendix for discussion of the index numbers of prices used.

PRE-WAR AND SOVIET RUSSIA

CHAPTER I. POPULATION.

Population figures are given solely for the purpose of comparison with employment and production figures.

The population of the Russian Empire before the war was estimated (by census in 1913) at 182 million. On January 1, 1914, the population of the present territory of Soviet Russia was 139.7 million. The present population is estimated to be over 161 million. The growth of population is shown in the following table:¹⁰

TABLE I. POPULATION.

| Pre-war Russia and U.S.S.R., 1914-1930 (in millions.) | | | | | | |
|--|-------|-------|-------|-----------------|----------------------------------|--|
| Compiled from the Control Figures 1929/30, pp. 420-21, supplemented by the Economic Handbook of the Soviet Union, American Russian Chamber of Commerce, 1931, p.1. | | | | | | |
| Date | Urban | Rural | Total | Percent of 1914 | Urban population (in % of total) | |
| January 1, 1914 | 25.8 | 113.9 | 139.7 | 100.0 | 18.5 | |
| January 1, 1917 | 29.0 | 112.7 | 141.7 | 101.4 | 20.4 | |
| August 28, 1920 | 21.1 | 113.2 | 134.3 | 96.4 | 15.7 | |
| August 1, 1922 | 21.7 | 110.0 | 131.7 | 94.3 | 16.6 | |
| March 15, 1923 | 21.9 | 111.6 | 133.5 | 95.6 | 16.5 | |
| January 1, 1924 | 22.1 | 114.9 | 137.0 | 98.2 | 16.1 | |
| April 1, 1925 | 23.2 | 116.8 | 140.0 | 100.2 | 16.6 | |
| January 1, 1926 | 25.3 | 119.2 | 144.5 | 102.2 | 17.1 | |
| December 17, 1926 ¹ | 26.7 | 120.2 | 147.9 | 105.3 | 17.9 | |
| April 1, 1928 | 27.9 | 123.4 | 151.3 | 108.3 | 18.4 | |
| April 1, 1929 | 29.3 | 125.5 | 154.8 | 110.8 | 18.7 | |
| April 1, 1930 ² | 30.7 | 127.8 | 158.5 | 113.4 | 19.1 | |

¹ According to the census of December 17, 1926.
² Approximately calculated.

The relation between urban and rural population is seen to be very nearly the same as in pre-war Russia. During the civil war years and reconstruction until 1928, the percent of city

¹⁰ Statement from the Economic Handbook of the Soviet Union, American Russian Chamber of Commerce, 1931, p. 1.

EMPLOYMENT AND UNEMPLOYMENT

population was somewhat lower than village or rural. Within the last year it is calculated as slightly higher.

The land area of the country totals 21,358,101 square kilometers (8,144,282 square miles), 4,582,351 square kilometers in Europe, 16,770,750 square kilometers in Asia.

PRE-WAR AND SOVIET RUSSIA

CHAPTER II. EMPLOYMENT.

The data on Employment in Soviet Russia are presented in four series:

1. Workers in large scale industry (census industry)¹¹ 1913, 1923/24-1929/30, average yearly, in numbers and in percents to the previous years.
2. Total employment 1913, 1923/24-1929/30, average yearly.
3. Employment in large scale industry, 1910-1923, average yearly.
4. Workers in large scale industry, monthly, 1928/29-1929/30. (See accompanying Series, Tables II-V and Chart I.)

These various employment series show at once the striking characteristics of the two decades. According to series 1, for the year 1913, with, in round numbers, 2,550,000 workers employed in large scale industry, to the year 1923/24, with less than 1,620,000 workers, the total industrial employment dropped thirty five percent. Not all branches of industry show the same percentage of decrease. The coal series shows a drop of 2.4 percent, oil 19.5 percent, metal 32.6 percent. Textiles 41 percent, the food industries 59.6 percent and sugar alone 74.5 percent. The series for Shoes, Linen and Electrical manufacture show an increase in employment, the last 203 percent. From 1923/24 to 1929/30, series 1, 2 and 4 all show an almost consistent increase, ranging from five to almost 30 percent a year. By 1928/29 total employment in Census Industry had risen from 1,800,000 persons in 1923/24 to 3,270,000, 17 percent above the 1913 level. In all employment, series 2 shows that it rose to over 12 million in 1928/29, 13 million in 1929/30.¹² (See Tables II, III and V.)

The rise, however, it will be noticed is for the totals and for certain categories. A good bit of variation occurs in other categories, evidence of shifting employment (See Series 1.)

¹¹ Census industry includes all industrial establishments employing 15 workers or more and using mechanical power, and all those employing at least 30 workers where no mechanical power is used.

¹² The word "workers" as used applies to manual workers, it is understood, in Russian terminology; the word employees includes both manual and clerical assistants.

EMPLOYMENT AND UNEMPLOYMENT

Primary among these are: a) a drop in oil employment in the last five years, a drop in paper and in salt; b) a sporadic rise and fall in employment in the metal, woodworking, chemical and food industries; c) a rise has been evident in the last five years in coal, from 1 to 6 percent a year, since 1923/24 in cement, from 3 to 75 percent a year, in glass manufacture, with the exception of the last year, and in textile, especially in cotton. The electrotechnical employment has increased consistently throughout the period, altogether nearly 500 percent. In salt, food and paper, and in wood-working and metal, until recently, when in metal especially a rapid rise seems apparent, a rise of 50 percent in 1929/30, the numbers have been consistently lower than in 1913. For five years in coal and glass and, throughout, in linen, leather and shoe, and in electrotechnical employment, the numbers have been consistently higher than in 1913.

The shifts represent changes in types and methods of manufacture. A study of series 2 shows similar tendencies: a great increase in the numbers employed, including both manual and clerical workers in census or large scale industry, in construction, transportation, especially railroad transportation, communication and commerce; a decided decrease in those employed in small scale industry and in agriculture.¹³

Series 3 shows something of the history of the great decrease during the war, revolution and civil war period. The year 1920 was the low mark, apparently, with employment slightly over fifty percent of the 1913 level. The year 1923/24 was therefore the second or third year of reorganization. The relation to population is significant. Large scale industrial employment increased 17 percent in 1928/29 above 1913; population increased 13 percent, and urban population 16 percent.

¹³ Since the drop in agricultural hired workers came entirely between 1913 and 1923/24, it represents to-date, probably, the change in proprietorship, i.e. right to the use of the land which came to the peasants in the October revolution.

IN
100,000
UNITS

CHART I
(TABLE I)
EMPLOYED PERSONS, PRE-WAR RUSSIA AND
U.S.S.R.

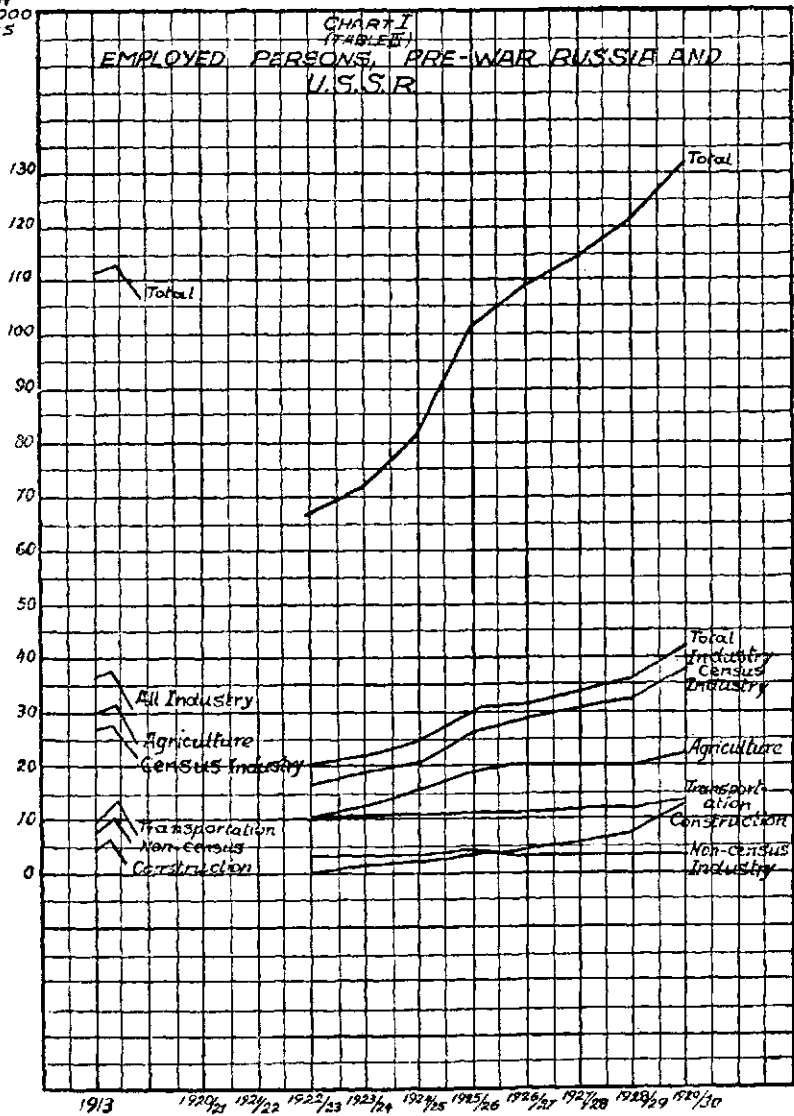


TABLE II. EMPLOYMENT SERIES, 1.

| NUMBER OF WORKERS IN LARGE SCALE INDUSTRY. | | | | | | | | | | |
|---|-----------------|---------------|-------------------|--------------------|---------------|----------------------------|---------------|-----------------------|---------------------------------|--------------------------------------|
| Pre-war Russia and U.S.S.R. Yearly Average in Thousands. | | | | | | | | | | |
| Years 1913 and 1923/24 to 1925/26 compiled from Control Figures 1926/27 p.p. 379-81; year 1926/27 compiled from Control Figures 1927/28, p. 501; years 1927/28 to 1929/30 compiled from Control Figures 1929/30, p. 504. Average for 1929/30 compiled from Monthly Statistical Bulletin. July 1930, p.p. 2-5. | | | | | | | | | | |
| | Census Industry | | | | | Planned National Economy | | | | |
| | 1913 | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 | 1927/ ² 1928 | 1928/ 1929 | 1929/ 1930 Plan | Average 11 months 1929/30 | % ³ 1928-29 to 1913 |
| Coal | 193.0 | 188.3 | 159.8 | 214.2 | 217.8 | 223.5 | 237.7 | 243.7 | 238.8 | 123.0 |
| Oil | 44.3 | 35.7 | 39.2 | 39.0 | 44.3 | 43.6 | 41.2 | 40.8 | 32.0 | 93.0 |
| Peat | 31.3 | 26.6 | 20.2 | 23.8 | — | 52.6 | 58.0 | 70.0 | — | 185.1 |
| Mining of Ore | — | — | 13.6 ¹ | 19.6 ¹ | 28.6 | 30.1 | 44.5 | 52.6 | 77.9 | — |
| Metal | 534.6 | 350.9 | 431.8 | 482.2 ¹ | 523.3 | 443.2 | 486.9 | 530.0 | 739.3 | 91.1 |
| Electrical Mfg. | 7.0 | 14.2 | 18.4 | 25.0 | 27.2 | 29.3 | 34.2 | 43.5 | 52.7 | 489.0 |
| Building Materials | — | — | — | — | — | 127.3 | 143.2 | 169.8 | — | — |
| Cement | — | 7.0 | 9.8 | 17.6 ¹ | 19.7 | 21.0 | 22.1 | 27.0 | 24.8 | — |
| Glass | 55.2 | 34.7 | 44.9 | 52.0 ¹ | 57.0 | 64.5 | 66.6 | 67.7 | 63.5 | 120.8 |
| Others | — | — | — | — | — | 41.8 | 54.5 | 75.1 | — | — |
| Lumber & Woodworking | 104.0 | 66.2 | 69.3 | 83.9 | 82.4 | 70.6 | 83.1 | 101.1 | 100.6 | 80.0 |
| Chemical (A + B) | 70.8 | 59.7 | 53.6 ¹ | 64.3 ¹ | 61.4 | 70.7 | 79.9 | 86.7 | 100.5 | 113.0 |
| Rubber | 14.4 | 9.8 | 15.0 | 19.9 | 19.4 | 20.1 | 23.5 | 26.3 | 29.3 | 163.2 |
| Match | 20.1 | 12.2 | 13.8 | 16.4 | 13.3 | (matches in Others) | | | 22.0 | — |
| Others | 36.3 | 37.7 | 42.7 | 50.0 | 28.7 | 50.6 | 56.4 | 60.4 | — | 155.1 |
| Textile | 704.9 | 415.9 | 535.8 | 670.8 | 669.5 | 695.9 | 700.3 | 681.7 | 623.1 | 99.5 |
| Cotton | 480.4 | 265.1 | 378.4 | 487.4 | 471.8 | 521.3 | 525.4 | 499.4 | 431.0 | 109.3 |
| Wool | 92.1 | 60.6 | 64.9 | 70.4 | 61.4 | 58.7 | 59.2 | 62.1 | 61.8 | 64.3 |
| Linen | 67.9 | 70.2 | 70.4 | 84.9 | 95.7 | 81.0 | 79.4 | 81.3 | 93.8 | 117.0 |
| Others | 64.5 | 20.0 | 22.1 | 28.1 | 40.6 | 34.9 | 36.3 | 38.9 | 36.6 | 56.4 |
| Machine sewn Goods (Clothing) | — | — | — | — | — | 42.0 | 57.2 | 67.4 | 65.8 | — |
| Leather and Shoe | 29.3 | 42.7 | 37.0 ¹ | 43.5 ¹ | 46.1 | 61.6 | 81.1 | 88.5 | 104.8 | 276.1 |
| Paper | 39.9 | 27.2 | 34.3 | 30.4 ¹ | 30.2 | 27.6 | 28.5 | 28.6 | 30.5 | 71.4 |
| China & Porcelaine | 100.9 | 26.5 | 17.7 ¹ | 20.5 ¹ | 21.6 | 22.5 | 22.6 | 22.4 | 23.7 | 70.8 |
| Food | 304.5 | 115.8 | 135.7 | 166.9 | — | 116.9 | 114.0 | 105.4 | 71.1 | 37.4 |
| Sugar | 154.8 | 37.8 | 37.0 | 39.2 | 36.7 | 46.0 | 43.6 | 36.7 | 10.6 | 28.2 |
| Others | 149.7 | 78.0 | 98.7 | 127.7 | — | 70.9 | 70.4 | 68.7 | — | 45.1 |
| Salt | 21.9 | 6.0 | 5.9 | 7.0 | 6.2 | 4.9 | 4.8 | 4.7 | 6.7 | 21.9 |
| Others | 311.0 | 200.1 | 266.5 | 461.1 | 707.2 | 69.7 | 81.2 | 92.9 | 162.1 | — |
| TOTAL Workers | 2552.0 | 1617.5 | 1893.5 | 2421.8 | 2579.2 | 2132.0 | 2298.4 | 2429.8 | 2517.0 | — |
| TOTAL Employees (census industry throughout) | 2776.0 | 1816.0 | 2105.0 | 2678.0 | 2839.0 | 3033.0 | 3270.0 | 3456.0 | — | 117.8 |

¹ Figures taken from Control Figures 1927/28.

² Figures hereafter are for Planned National Economy only. See Appendix for explanation.

³ Since figures for 1928/29 are for Planned National Economy only and figures for 1913 are for Large Scale Industry, these percentages probably represent a minimum.

TABLE III. EMPLOYMENT SERIES 2.

| NUMBER OF EMPLOYED PERSONS. | | | | | | | | | |
|--|--------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------|
| Pre-war Russia and U.S.S.R. Yearly Average in Thousands. | | | | | | | | | |
| Years 1913 and 1922/23 to 1924/25 compiled from Control Figures 1926/27, p.p. 254-5 and 376-7; years 1925/26 to 1928/29 compiled from Control Figures 1929/30, pp. 487-9; year 1929/30 compiled from Planned Economy, October-November, p. 43. | | | | | | | | | |
| | 1913 | 1922/ 1923 | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | 1929/ 1930 |
| Industry | 3636 | 2043 | 2200 | 2489 | 3105 | 3261 | 3441 | 3678 | 4243 |
| Census or Large Scale | 2775 | 1659 | 1816 | 2105 | 2678 | 2839 | 3033 | 3270 | 3835 |
| Non-Census or Small Scale | 860 | 384 | 384 | 384 | 427 | 422 | 408 | 408 | 408 |
| Construction | 300 | 137 | 202 | 280 | 426 | 547 | 684 | 818 | 1321 |
| Transportation | 975 | 1093 | 1104 | 1139 | 1192 | 1257 | 1255 | 1270 | 1440 |
| Railroad | | 862 | 875 | 896 | 914 | 961 | 957 | 951 | 1025 |
| Water | | 120 | 99 | 103 | 99 | 111 | 110 | 113 | 130 |
| Local | | 111 | 130 | 140 | 179 | 185 | 188 | 206 | 284 |
| Communication | 72 | 92 | 87 | 90 | 94 | 95 | 95 | 95 | 102 |
| Credit and Commerce | 510 | 306 | 380 | 490 | 615 | 669 | 679 | 777 | 916 |
| Agriculture | 3000 | 1100 | 1300 | 1500 | 2052 | 2124 | 2083 | 2138 | 2322 ¹ |
| Total of listed Items | 8693 | 4771 | 5273 | 5988 | 7482 | 7953 | 8240 | 8776 | 10344 |
| Others | | 1865 | 2057 | 2268 | 2734 | 3037 | 3216 | 3374 | 2949 |
| TOTAL Employed | 11200 ² | 6736 ³ | 7330 | 8256 | 10218 | 10990 | 11456 | 12150 | 13293 ¹ |

¹ Planned figure. See Control Figures 1929/30.

² Estimated.

³ Discrepancy in total (probably typographical error).

TABLE IV. EMPLOYMENT SERIES 3.

| EMPLOYMENT IN LARGE SCALE INDUSTRY. PRE-WAR RUSSIA AND U. S. S. R. 1910-1923. | | | | | | |
|--|---------|---------|---------|-----------|-----------|-----------|
| Industry | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 |
| Total large scale industry | | | | 2,319,577 | 1,960,868 | 1,922,572 |
| Mineral | | | 130,060 | 215,560 | 174,138 | 114,939 |
| Mining including | | | 388,266 | | | |
| Coal | | | 156,701 | | | |
| Donetz mines | 110,000 | 132,000 | 141,000 | 168,000 | 186,000 | 181,000 |
| Oil | | | 34,109 | 37,459 | 38,285 | 39,180 |
| Peat | | | 31,200 | | | |
| Salt | | | 18,731 | | | |
| Iron ore | | | | | | |
| Metal | | | 339,110 | 385,621 | 346,989 | 416,713 |
| Wood Working | | | 78,202 | 136,110 | 106,273 | 79,318 |
| Chemical incl. | | | 50,092 | 90,463 | 76,767 | 70,227 |
| Rubber | 15,012 | | 9,159 | 22,766 | 25,350 | 26,515 |
| Matches | | | 18,260 | | | |
| Alimentary incl. | | | 236,703 | 369,001 | 330,879 | 319,643 |
| Sugar | | | 113,568 | 178,350 | 158,588 | 162,355 |
| Tobacco | | | 21,265 | | | |
| Animal products incl. | | | 40,830 | 55,736 | 50,450 | 61,234 |
| Leather & Fur | | | 16,112 | | | |
| Shoe | | | 11,701 | | | |
| Cotton | | | 429,612 | 566,137 | 485,563 | 479,304 |
| Wool | | | 79,494 | 66,557 | 93,931 | 86,928 |
| Silk | | | 33,417 | 34,697 | 31,297 | 27,499 |
| Linen | | | 58,653 | | | |
| Hemp, jute, etc. | | | 15,383 | 104,544 | 96,892 | 103,214 |
| Other textile | | | 5,960 | 46,323 | 29,126 | 33,642 |
| Clothing | | | | | | |
| Paper & printing | | | 32,943 | 107,744 | 92,172 | 82,540 |
| Power and non classified | | | | 7,605 | 8,098 | 7,891 |
| Metallurgy | | | | 299,778 | 295,797 | 343,850 |

Certain figures are erratic because they come from the years 1917-21, years of confusion. Due to progressive registration from the center to distant regions statistical error is involved because newly registered enterprises are continually added to the annual total. In the year 1920 in some of the "Glavkies" all plants were counted as working even though they worked actually only a few days.

Up to 1916 only factories under factory-inspection furnished figures, which

Publications of Central Statistical Department, Moscow:
 Statistical Handbook U. S. S. R. 1928 (Moscow 1929)
 " " 1913-17 (" 1921)
 " " Yearbook 1918-20; 1921; 1924.
 Compiled from: Soviet Union Trade Delegation. Berlin: Encyclopedia of
 Russian Exports, Berlin 1925.
 Osteuropa Institut, Breslau: dr. S. Köhler. Die Russische
 Arbeiterschaft von 1905-1917, Berlin 1921.
 S. S. Zagorsky. State Control of Industry in Russia during
 the War, New Haven 1921.

| 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 |
|-----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2,093,862 | | 2,012,000 | 1,335,000 | 1,223,000 | 1,306,657 | 1,125,022 | 1,292,226 |
| 101,638 | | | | 50,372 | 49,357 | 44,508 | 58,882 |
| | | | | 324,393 | 303,129 | 282,358 | 336,347 |
| | | | | 159,536 | 170,159 | 130,646 | 169,885 |
| 235,000 | 280,000 | 157,000 | 58,000 | 116,000 | 117,000 | | |
| 41,327 | | | | 33,876 | 21,164 | 28,488 | 38,488 |
| 37,358 | 43,481 | 49,000 | 57,865 | 99,580 | 25,036 | 44,572 | 21,447 |
| | | | | 13,156 | 13,596 | 5,336 | 6,726 |
| | | | | 79,254 | 56,732 | 65,901 | 83,294 |
| 546,117 | | 181,258 | 60,290 | 228,153 | 248,895 | 175,012 | 175,314 |
| 87,780 | | | | 35,612 | 45,013 | 42,098 | 49,229 |
| 92,679 | | 27,086 | 29,813 | 35,554 | 38,958 | 36,472 | 45,009 |
| 23,663 | 28,653 | 20,664 | 6,529 | 6,112 | 7,913 | 9,187 | 11,911 |
| | | 9,041 | 11,835 | 10,852 | 11,071 | 9,421 | 10,400 |
| 338,591 | | 42,142 | 70,484 | 260,196 | 172,534 | 103,468 | 112,914 |
| | | 46,189 | 34,200 | 189,720 | 14,150 | 34,355 | 29,410 |
| | | 15,841 | | 27,201 | 20,530 | 18,950 | 19,200 |
| 70,168 | | 17,862 | 8,516 | 111,527 | 88,994 | 43,659 | 46,620 |
| | | 10,666 | 6,296 | 54,050 | 50,905 | 29,246 | 31,832 |
| | | 6,502 | | 53,745 | 35,598 | 11,959 | 11,299 |
| 458,758 | | 271,466 | 135,000 | 134,078 | 85,434 | 179,838 | 216,644 |
| 87,714 | | 23,675 | 50,150 | 42,975 | 49,499 | 42,396 | 53,950 |
| 26,731 | | 1,278 | 5,650 | 3,110 | 4,521 | 3,296 | 3,649 |
| | | 29,927 | 60,071 | 46,651 | 20,208 | 46,128 | 60,231 |
| 108,833 | | 3,746 | 6,000 | 4,676 | 9,371 | 8,709 | 9,681 |
| 42,023 | | | 5,800 | 2,790 | 4,075 | 4,214 | 2,127 |
| | | 10,987 | | | 77,283 | 36,677 | 34,020 |
| 80,514 | | 22,894 | 18,982 | 22,593 | 88,098 | 55,814 | 63,764 |
| 10,989 | | 5,453 | | 28,823 | 23,974 | 20,393 | 21,817 |
| 427,502 | 452,374 | 113,051 | 54,038 | 61,029 | | | |

means that these data cover the privately owned large-scale industry, with the exception of a good part of the mines.

Shoe industry was in 1918 and 1920-23 taken out of the "clothing" in which the newer sources include it. During same years small scale leather industry was included with large scale.

Zagorsky and others frequently use these figures stating that they include State and private industry, 1914-17 exclude Poland.

TABLE V. EMPLOYMENT SERIES 4.

| AVERAGE NUMBER OF WORKERS IN LARGE | | | | | | |
|---|---------|-----------|-----------|-----------|-----------|-----------|
| (without junior Compiled from the Monthly Statistical Number of workers | | | | | | |
| | Years | October | November | December | January | February |
| 1. Coal | 1928/29 | 231,657 | 230,503 | 231,771 | 231,109 | 226,303 |
| | 1929/30 | 236,266 | 245,271 | 251,169 | 254,687 | 254,203 |
| 2. Naphtha | 1928/29 | 31,421 | 31,173 | 30,839 | 30,716 | 30,307 |
| | 1929/30 | 30,502 | 30,479 | 30,704 | 30,816 | 31,758 |
| 3. Ore | 1928/29 | 55,178 | 55,927 | 57,509 | 61,627 | 62,415 |
| | 1929/30 | 71,791 | 72,866 | 72,173 | 76,632 | 77,411 |
| 4. Salt | 1928/29 | 5,633 | 4,718 | 4,202 | 4,186 | 4,467 |
| | 1929/30 | 7,187 | 6,199 | 5,293 | 5,123 | 5,167 |
| 5. Silicate | 1928/29 | 111,144 | 112,099 | 112,348 | 112,730 | 113,113 |
| | 1929/30 | 118,350 | 122,825 | 123,806 | 124,239 | 126,415 |
| 6. Metal | 1928/29 | 565,287 | 566,016 | 570,624 | 578,770 | 585,221 |
| | 1929/30 | 637,649 | 645,304 | 661,101 | 678,250 | 711,569 |
| 7. Electrotechnical | 1928/29 | 33,434 | 33,687 | 33,785 | 34,076 | 34,330 |
| | 1929/30 | 39,026 | 40,992 | 42,947 | 44,916 | 48,413 |
| 8. Textile | 1928/29 | 676,125 | 675,375 | 677,351 | 676,948 | 672,169 |
| | 1929/30 | 626,137 | 625,458 | 629,317 | 628,662 | 637,310 |
| 9. Mfg. of Clothing | 1928/29 | 67,471 | 67,897 | 68,063 | 68,333 | 68,826 |
| | 1929/30 | 75,323 | 77,871 | 79,573 | 86,341 | 91,663 |
| 10. Leather | 1928/29 | 64,211 | 66,069 | 67,785 | 70,423 | 72,132 |
| | 1929/30 | 87,372 | 89,451 | 93,200 | 96,702 | 101,230 |
| 11. Chemical | 1928/29 | 76,947 | 77,843 | 78,359 | 79,857 | 80,243 |
| | 1929/30 | 88,740 | 90,174 | 92,097 | 95,168 | 98,627 |
| 12. Alimentary (non stop production) | 1928/29 | 56,202 | 56,339 | 56,741 | 56,095 | 55,554 |
| | 1929/30 | 49,374 | 48,863 | 47,555 | 47,500 | 47,705 |
| 13. Wood Working | 1928/29 | 68,258 | 62,322 | 65,038 | 70,175 | 73,763 |
| | 1929/30 | 86,931 | 82,935 | 87,447 | 96,522 | 100,840 |
| 14. Polygraphic | 1928/29 | 26,591 | 26,378 | 26,379 | 26,564 | 26,636 |
| | 1929/30 | 28,964 | 29,371 | 30,061 | 30,587 | 31,333 |
| 15. Paper | 1928/29 | 27,571 | 27,448 | 27,752 | 27,923 | 28,287 |
| | 1929/30 | 30,374 | 29,565 | 29,421 | 29,093 | 30,033 |
| 16. Seasonal Alimentary Production | 1928/29 | 19,122 | 33,036 | 36,348 | 38,601 | 39,214 |
| | 1929/30 | 13,099 | 31,266 | 35,480 | 35,703 | 34,046 |
| TOTAL WORKERS | 1928/29 | 2,178,249 | 2,188,129 | 2,208,500 | 2,232,671 | 2,239,166 |
| | 1929/30 | 2,307,624 | 2,344,419 | 2,382,850 | 2,435,359 | 2,501,552 |

SCALE INDUSTRY, U. S. S. R., 1928/29—1929/30

personnel)

Bulletin, July 1930, 10, No. 85, p.p. 2-5.

listed at end of month.

| March | April | May | June | July | August | September | Year Average number listed at end of months |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| 223,315 | 214,982 | 216,081 | 214,868 | 212,645 | 209,011 | 224,862 | 222,259 |
| 256,934 | 253,649 | 249,107 | 235,765 | 202,267 | 187,440 | — | — |
| 29,944 | 29,762 | 29,643 | 20,619 | 20,678 | 20,821 | 29,929 | 30,254 |
| 31,950 | 32,241 | 32,509 | 33,404 | 33,896 | 33,969 | — | — |
| 60,344 | 56,477 | 62,489 | 68,467 | 64,375 | 68,645 | 72,644 | 62,175 |
| 80,740 | 80,553 | 84,470 | 85,269 | 75,965 | 69,747 | — | — |
| 4,695 | 5,720 | 7,011 | 8,412 | 9,036 | 9,336 | 9,583 | 6,411 |
| 5,274 | 5,881 | 6,697 | 8,803 | 8,998 | 8,903 | — | — |
| 111,748 | 111,088 | 109,284 | 111,161 | 110,181 | 114,741 | 116,251 | 112,160 |
| 127,698 | 129,520 | 130,408 | 132,559 | 129,204 | 130,029 | — | — |
| 586,435 | 589,474 | 598,897 | 609,164 | 617,187 | 625,478 | 634,086 | 593,886 |
| 735,768 | 758,791 | 788,143 | 818,432 | 842,137 | 855,439 | — | — |
| 34,083 | 34,018 | 34,478 | 34,876 | 35,565 | 36,508 | 37,617 | 34,705 |
| 53,450 | 56,494 | 58,806 | 61,412 | 64,184 | 68,847 | — | — |
| 661,728 | 648,158 | 645,599 | 643,223 | 638,666 | 634,468 | 633,870 | 656,973 |
| 644,012 | 636,411 | 615,714 | 606,848 | 601,537 | 603,309 | — | — |
| 69,153 | 69,308 | 70,708 | 71,131 | 72,155 | 73,990 | 74,960 | 70,150 |
| 95,944 | 101,566 | 102,596 | 105,530 | 105,231 | 113,494 | — | — |
| 73,697 | 76,470 | 81,283 | 83,552 | 85,294 | 85,833 | 85,467 | 76,018 |
| 106,616 | 109,188 | 114,061 | 115,462 | 118,214 | 121,596 | — | — |
| 80,908 | 81,198 | 83,389 | 85,014 | 85,890 | 85,921 | 86,983 | 81,879 |
| 100,498 | 103,107 | 106,531 | 108,250 | 109,501 | 112,364 | — | — |
| 53,826 | 52,116 | 51,799 | 50,876 | 52,064 | 51,942 | 50,988 | 53,712 |
| 47,759 | 47,611 | 50,358 | 52,349 | 53,849 | 53,649 | — | — |
| 74,395 | 66,855 | 61,733 | 81,075 | 89,874 | 92,906 | 91,722 | 74,843 |
| 105,932 | 101,484 | 97,935 | 112,928 | 117,133 | 117,059 | — | — |
| 26,682 | 26,266 | 26,781 | 28,109 | 28,848 | 28,993 | 29,018 | 27,271 |
| 31,833 | 32,062 | 32,984 | 33,373 | 34,311 | 34,766 | — | — |
| 28,306 | 28,516 | 28,136 | 29,240 | 30,235 | 30,256 | 30,080 | 28,646 |
| 30,624 | 29,861 | 31,059 | 32,010 | 31,902 | 31,814 | — | — |
| 39,124 | 38,774 | 34,954 | 19,131 | 9,475 | 7,487 | 8,301 | 28,382 |
| 30,866 | 20,671 | 12,230 | 8,600 | 7,706 | 6,224 | — | — |
| 2,226,779 | 2,199,607 | 2,215,409 | 2,245,613 | 2,255,607 | 2,263,223 | 2,294,445 | 2,230,362 |
| 2,575,572 | 2,585,025 | 2,604,846 | 2,655,770 | 2,638,969 | 2,655,436 | — | — |

PRE-WAR AND SOVIET RUSSIA

CHAPTER III. UNEMPLOYMENT.

Data on unemployment in Soviet Russia seem to have been collected and recorded at the Employment Exchange throughout the country between the years 1921 and 1930 at least. It was not readily available in Russian publications, however, in detail and consistently, certainly not in those which were accessible to the writers at the time of this report. Figures have been taken therefore from articles and from the Statistics of Unemployment published monthly in the International Labour Review. The figures given came from the Soviet Employment Exchanges and they tally very well with those figures which are given in the Control Figures of the Central Statistical Administration of Gosplan for the years 1923/24 to 1926/27. The series given cover the years from 1921 (July) to 1930. Data for pre-war and war years are lacking, or were not found, at least.

A study of Table VI and Chart II reveals an extraordinary situation. During the years of civil war and "war communism" unemployment, according to the International Labour Office, was practically non-existent. The record in July of 1921 at the outset of the New Economic Policy is extremely low, 150,000 persons. From then on, with seasonal variation and with some fluctuation, upwards in the year 1923/24 to 1,344,000, downward in the year 1924/25 to 901,000, a rise in the number of unemployed is recorded, till April of 1929 when they reach their high-mark at 1,772,500 persons. Between April of 1929 and July of 1930, with again seasonal variation, the drop is striking. By July of 1930 the record shows 633,400 only unemployed.

Some discussion of the nature of the figures is essential. According to the Russian statement, the unemployed registered in the labor exchanges include both persons with a work record, out of a job and seeking work, and also young persons and peasants who are seeking work for the first time. A discussion of the problem in the Control Figures prepared during the autumn of 1929 is worth quotation:

"The past year 1928/29 is characterized by a noticeable break in the development of unemployment; conjuncture figures during 9 months show that: the number of so-called unemployed proper, i. e. persons who were

EMPLOYMENT AND UNEMPLOYMENT

lired until the condition of unemployment began, has grown during 9 months by 1.7 percent, instead of by 42 percent during the same period last year. The persons who offer their work for the first time, increase their number during 9 months of this year by 26 percent, instead of by 43 percent, as during the corresponding period of last year. The whole registered mass of unemployed increases by 14.5 percent in comparison with last year, but the unemployed proper increase only by 8.4 percent. Taking into account the lowering in the rate of growth which usually takes place in the last quarter of the fiscal year, we may assume that the average yearly number of unemployed will increase by 10 percent, instead of by 11.6 percent, as had been planned in the Control Figures of 1928/29.

The statistics indicated refer to figures furnished by the Employment Agencies. According to the Trade Unions' figures, we have still more favorable data. According to the figures of the Central Council of Trade Unions, the number of unemployed members of the Union remains stable during the course of the year (April 1, 1928—April 1, 1929).

The growth of unemployment takes place mainly through persons who for the first time are looking for work, and who make up the principal group. If from the total mass of unemployed one were to deduct the group of persons looking for work for the first time, then in June of the current year we would obtain an absolute decrease of unemployment in comparison with June of last year by 78 thousand persons."¹⁴

The discussion continues with a statement that the problem of unemployment is primarily a problem of organization. With a better development of the activities of the Commissariat of Labor and of the Trade Unions in retraining and transferring workers to districts where labor shortage occurs, the number of unemployed in the Soviet Union would be lowered. It calls attention to the new labor demand expected in 1929/30, and suggests a better developed "planned system for hiring workers". In other words, a large percentage of the persons listed as unemployed belongs to the group of new workers, young persons, and also peasants who seek industrial employment for the first time. Moreover the demand for workers is sufficient, so that with proper organization, training and placement, the figures should be greatly reduced.

The figures for the year 1929/30 are evidence apparently of the more effective "planned system". In July of 1930 they had dropped to 633,000. The Commissariat of Labor declared there was no further unemployment in the Soviet Union, except those new and unskilled workers who could readily be placed by training

¹⁴ Control Figures, 1929/30, p. 239-240.

PRE-WAR AND SOVIET RUSSIA

and adaptation. It announced that the funds hitherto used for unemployment insurance would be used to better advantage by augmenting the efforts of the Trade Unions, the Commissariat of Labor and the Supreme Council of National Economy in training workers and young persons, and in transferring them to districts where they were needed. Unemployment insurance in Soviet Russia has yielded to training and rehabilitation. But that has occurred only after the number of persons registered as unemployed had dropped to such low figures that it could be handled by such methods, and the demand for new workers made training and rehabilitation both practical and imperative. The contention of Soviet Russia that unemployment is a phenomenon belonging to capitalist economy is born out by the relationship between her own problem, and the rise and fall of the New Economic Policy between 1921 and 1928. The final "liquidation of Nep", as it was called, and the development of planned economy has coincided very closely with the "liquidation of unemployment", and that in the year of world depression 1929/30. That the Employment Exchanges are still filled in Soviet Russia seems highly probable. That they are filled with people, able to work, looking for work, and unable to find it, if they will take the opportunities offered for training and transfer, seems highly improbable.

In
thousands
of
units

CHART II
(TABLE VI)
UNEMPLOYMENT ON LINE REGISTER U.S.S.R. 1921 - 1930

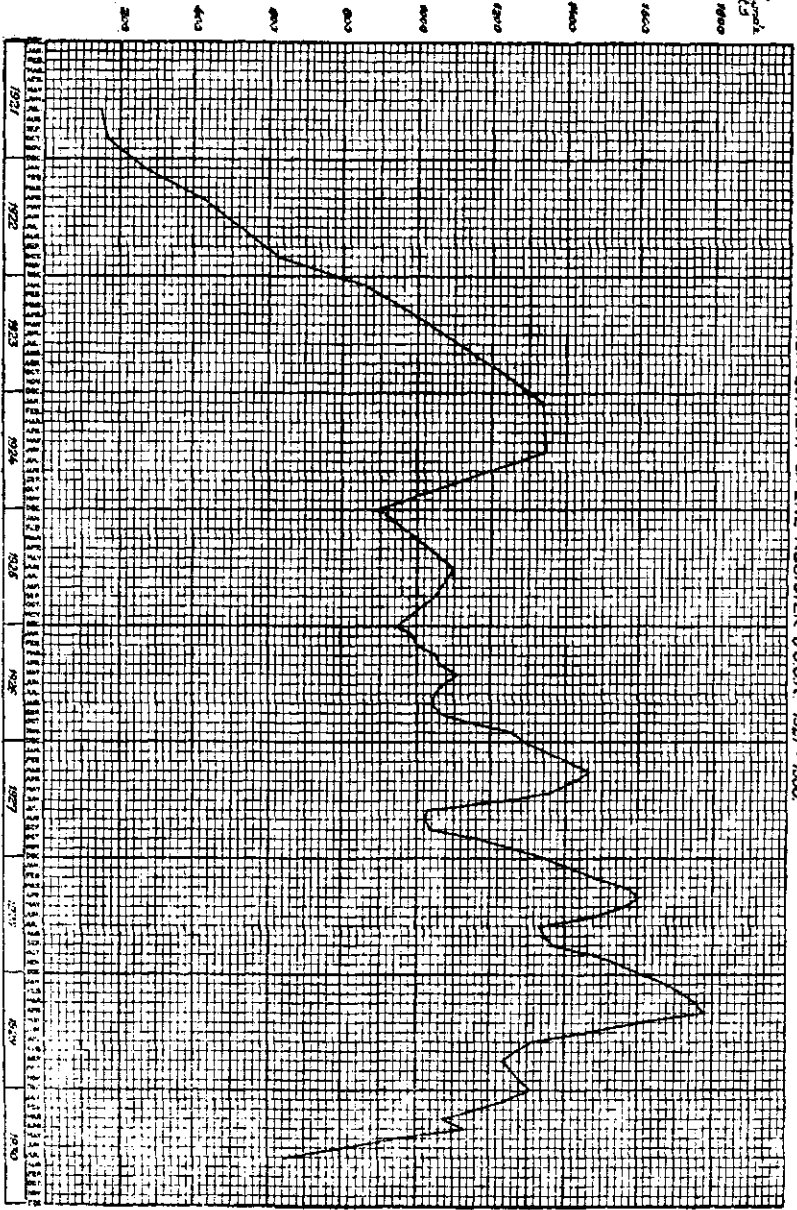


TABLE VI.

| UNEMPLOYED ON LIVE REGISTER, U. S. S. R. | | | | | | | | | | | |
|---|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| (in thousands) | | | | | | | | | | | |
| Compiled from the International Labor Review November 1926-January 1930, Statistics on Employment ¹ | | | | | | | | | | | |
| | | 1920/ 21 | 1921/ 22 | 1922/ 23 | 1923/ 24 | 1924/ 25 | 1925/ 26 | 1926/ 27 | 1927/ 28 | 1928/ 29 | 1929/ 30 |
| 1st quarter | October ² | | 175.2 | 625.0 | 1240.0 | | | 1163.4 | 1171.1 | 1475.0 | 1259.8 |
| | November | | | | | | | 1254.3 | 1268.0 | 1561.0 | 1284.7 |
| | December | | | | | 901.6 | 951.2 | 1289.6 | 1352.8 | 1616.0 | 1310.8 |
| 2nd quarter | January | | 266.4 | 865.1 | 1340.0 | | 988.0 | 1350.4 | | 1666.5 | 1254.8 |
| | February | | | | | | 1005.6 | 1407.0 | 1482.8 | 1717.2 | 1168.5 |
| | March | | | | | | 1056.4 | 1477.9 | 1576.4 | 1755.5 | 1080.9 |
| 3rd quarter | April | | 436.0 | 1000.0 | | | 1070.9 | 1419.9 | 1598.7 | 1772.5 | 1125.6 |
| | May | | | | | | 1114.2 | 1363.4 | 1571.1 | 1593.0 | 936.6 |
| | June | | | | 1344.3 | 1100.0 | 1065.5 | 1216.9 | 1471.3 | 1448.0 | 785.7 |
| 4th quarter | July | 150.0 | 533.6 | 1115.0 | | | 1030.1 | 1037.5 | 1339.8 | 1310.6 | 633.4 |
| | August | | | | | | 1023.7 | 1025.0 | 1344.0 | 1264.0 | |
| | September | | | | | 1055.0 | 1071.0 | 1041.2 | 1364.6 | 1241.6 | |
| Average | | 150.0 | 352.8 | 901.3 | 1308.1 | 1018.8 | 1037.6 | 1253.9 | 1442.8 | 1535.1 | 1084.1 |

¹ Figures were published quarterly to December 1925 thereafter monthly.
Data for years 1924 and 1925 erratic.

² Fiscal year of Soviet Russia was from October to October 1920/21-1929/30.

PRE-WAR AND SOVIET RUSSIA

CHAPTER IV. PRODUCTION.

When one comes to study production, especially industrial production, one finds the heart of the whole subject of employment in pre-war and Soviet Russia. The historical situation alone, that is the war, disorganization and reconstruction, might be expected to bring about a fall and rapid rise in all productive works. A new impetus toward industrialization arising in part from the lack of industrial development, earlier, adds to the rate of increase. The development in the industrial world of new techniques and new applications of power, commonly in Europe called rationalization, and their adaptation into a newly industrialized country along with the industrializing process itself increases that rate still more. Conceivably, these things might all contribute to a great rise in a nation's productive power without socialism or a new economic organization. Nowhere have they done so and practically, in themselves, they do not give any reason for the conjuncture at one time. A new impetus toward industrialization arising out of the political needs of the Soviet government is necessary to add to that list.

Three series of data regarding industrial production are offered.¹⁵

1. Large scale industry, main categories, 1913, 1923/24—1929/30.
 - a) in pre-war prices;
 - b) in quantities.
2. Planned Industry, 1925/26—1929/30.¹⁶
 - a) in prices of 1926/27.
3. Large scale production main categories 1913-1923, in volume and percent of change.
4. Large scale production, main categories, monthly 1928/29—1929/30, in prices of 1926/27.

Two series of data regarding agricultural production are offered:

1. Agricultural production, principal categories, 1913, 1923/24 to 1929/30.

¹⁵ In view of the disagreement as to Russian sources, the reader is asked particularly to refer to the discussion of sources in the Appendix.

¹⁶ See Appendix for discussion of "large scale" and "planned industry".

EMPLOYMENT AND UNEMPLOYMENT

- a) in pre-war prices
 - b) in quantities.
2. Agricultural production, principal categories 1925/26—1929/30.
- a) in prices of 1926/27.
- (See accompanying Series Tables VII-XVIII and Chart III.)

The drop which has been described earlier between 1913 and 1923/24 levels of production is apparent in both industry and agriculture. In industry, in 1923/24, total large scale production amounts to little more than 50 percent of 1913 levels, in agriculture to 65 percent. (See Production Series 1a and Agriculture Series 1a) And in both cases the year 1923/24 is well within the reconstruction period. The production level of 1920 was nearer 20 percent of the 1913 level in industry, and of 1921/22, the famine year, was 50 percent of the 1913 level in agriculture. (See Tables X and XVIII.)

The rise of large scale industrial production between 1923/24 and 1929/30, however, as seen in the foregoing figures is extraordinary. It amounts, on the average, to over 25 percent per year and, for the period, to 372 percent as reckoned in pre-war prices. The only exceptions to the uninterrupted advance are in the series for textile manufacture and woodworking in 1929/30. A poor cotton crop the preceding year is given as part explanation for the textile failure. The woodworking drop was according to plan and represents a purposeful shift in production. During the seven years from 1923/24 to 1929/30, coal and crude oil production more than doubled, going from 97 to 254 million roubles, metal and electric manufacture increased seven times, from 288 to 2055 million roubles, chemical eight times, from less than 79 to 671 million roubles, textile four times, from 496 to 1952 million roubles, and leather and shoe nearly five times, from 117 to 616 million roubles. (See Tables VII and VIII.)

For the sake of comparison in the series of Planned National Industry, 1925/26—1929/30 (Production series 2), data from the Control Figures for 1929/30 of the plan for the year are tabulated beside data of estimated accomplishment, published

PRE-WAR AND SOVIET RUSSIA

in November 1930. In no categories do the two exactly coincide. The closeness of certain of the estimates, however, especially metal, electrotechnical, leather and shoe, china, food and salt industries are notable. The total realization, if these figures prove correct, showed apparently less than a six percent deviation from the plan. (See Table IX.)

Production series number 3 gives the history of industrial production during the world war and civil war years. The economic breakdown during the great war years becomes apparent. If the data on transportation were included, it would be more apparent. The drop in 1917 and the post-revolutionary years until 1920 when the output of coal, for example, drops to 20 percent of iron ore and cast iron drops to two and three percent of the 1913 level, tells its own story. The year 1923 is shown to be well on the road to recovery. (See Table X.)

The rise in agricultural production between 1923/24 and 1929/30 is less striking.¹⁷ Pre-war levels have hardly yet been reached if one estimates the total in pre-war roubles. Certain categories which have greatly outstripped the 1913 base are exceptional rather than the rule.

Unfortunately the figures on agriculture available did not include the accomplishments for the year 1929/30. Conclusions can, therefore, be tentative only. Certain items, such as the production of grain, have according to all reports far outstripped the plan, through the successful harvests of the new collective and state farms.

In this connection it should be stated that the processes both of reorganization and of mechanization have only recently been introduced into the agricultural economy. Peasant farms, realigned though some of them were through the distribution of landlords' estates, continued to operate after the revolution much as before. How much material change other than that due to the disorganization of the land through civil war, intervention and famine, accrued to the mass of the Russian peasants, until recently, is doubtful. The agricultural revolution in Russia came with the development of collective farming within the last

¹⁷ The series Agriculture 1a given do not include forestry or fishing and hunting.

EMPLOYMENT AND UNEMPLOYMENT

two years. The crisis in the situation was passed in the winter and spring of 1930.

Future statistics will show whether collectivization proves to be the economic boon to Russian agriculture which the Soviet government confidently expects. The evidence so far attainable indicates a high degree of success. The fears of other wheat growing countries of future Soviet wheat export reflect it. The application of tractors and mechanized farming alone, aside from the economic advantage of peasant organization, would lead one to expect it.

Three more series (Tables XV, XVI and XVII), one on transportation and two on electric power, are consistent with the data presented. Both show the increase in recent years. Freight handled in 1929/30 was more than double that handled in 1913 and the output of electric power was increased four times. Neither series include the years of breakdown. Both transportation and power have problems facing them, as indeed have industry and agriculture, which are far from solved for the future. It is the function of this report, however, to present the statistical data of the past years rather than to discuss the future, except when such discussion seems essential to an understanding of the figures given.

Finally a series (Table XVIII) is included presenting gross production of the Soviet Union industry and agriculture for the years 1913 to 1928/29, from a recent publication in English of the Five Year Plan by G. T. Grinko, vice-chairman of the State Planning Commission.¹⁸

The notable point in all the series is the growth of industrial production in the period: not simply of reconstruction but of new construction since the pre-war levels were reached, in 1925/26. The series both of volume and of values reveal it. One can hardly wonder that employment has risen and unemployment decreased with production figures mounting at the rate which they have done.

¹⁸ Grinko G. T., *The Five Year Plan of the Soviet Union*, International Publishers, New York 1930, pp. 33 and 34.

CHART III
(TABLE VII)

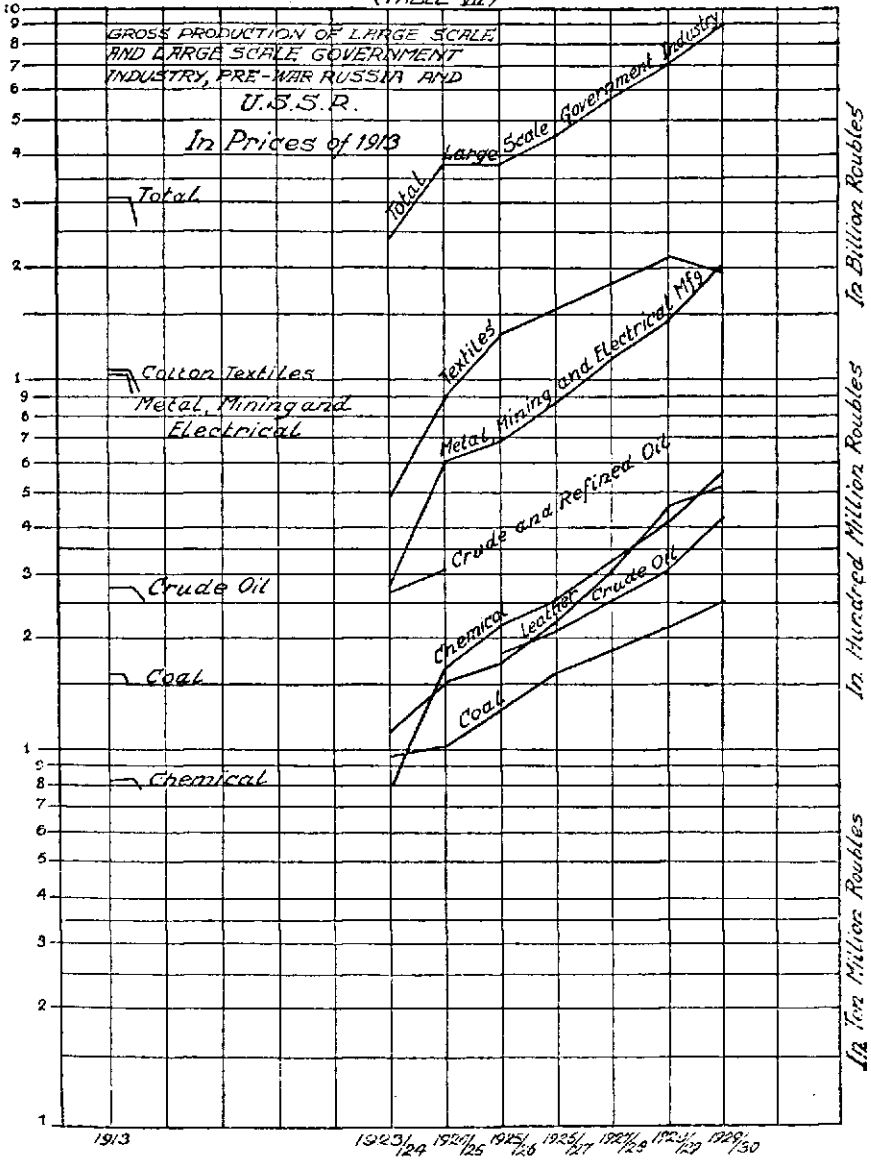


TABLE VII. INDUSTRIAL PRODUCTION SERIES 1a.

| GROSS PRODUCTION OF LARGE SCALE AND LARGE SCALE GOVERNMENT INDUSTRY. | | | | | | | | | |
|---|---------------------|---------------------|--------------------------|---------------------|-------------|-------------|-------------|-------------------------|-------|
| Pre-war Russia and U. S. S. R. | | | | | | | | | |
| In Million Roubles, Producers' Prices of 1913 ¹ | | | | | | | | | |
| Year 1913 compiled from Control Figures 1925/26, p. 83; years 1923/24 and 1924/25 compiled from Control Figures 1926/27, pp. 351 and 334; years 1925/26 to 1928/29 compiled from Control Figures 1929/30, p. 503; year 1929/30 compiled from Planned Economy, October-November 1930, pp. 346-7. | | | | | | | | | |
| Census Industry | | | Planned National Economy | | | | | | |
| 1913 | 1923/ 24 | 1924/ 25 | 1925/ 26 ² | 1926/ 27 | 1927/ 28 | 1928/ 29 | 1929/ 30 | % 1929/30 to 1913 | |
| Coal | 159.6 | 97.6 | 104.7 | 132.9 | 169.1 | 188.2 | 216.7 | 254.0 | 159.1 |
| Oil | 280.7 | 270.0 ³ | 309.0 ³ | 181.7 | 219.9 | 236.1 | 315.4 | 425.0 | 151.5 |
| Metal, Ore, Mining and Electrical | 1028.4 | 288.3 | 603.2 | 699.5 | 892.7 | 1118.8 | 1465.2 | 2055.9 | 199.9 |
| Wood Working | | 82.9 | 110.0 | 211.7 | 261.9 | 332.4 | 477.3 | 352.4 | — |
| Chemical (A + B) | 81.6 ⁴ | 78.7 | 165.4 | 220.2 | 259.6 | 335.9 | 422.0 | 671.4 | 821.8 |
| Textile | 1065.6 ⁴ | 496.4 | 904.1 | 1319.9 | 1570.6 | 1865.7 | 2125.5 | 1952.8 | 183.0 |
| Leather | | 117.1 | 159.2 | 177.7 | 222.1 | 308.3 | 447.3 | 616.7 | — |
| Salt | 8.5 | 5.4 | 8.2 | 6.5 | 8.1 | 9.5 | 10.4 | 13.7 | 161.1 |
| Sum of Items listed | 2624.4 | 1436.4 | 2363.8 | 2950.1 | 3604.1 | 4414.9 | 5479.8 | 6341.9 | 242.4 |
| TOTAL Large Scale and Government Industry | 3085.6 ⁵ | 2383.3 ⁷ | 3739.3 ⁷ | 3793.2 ⁸ | 4545.0 | 5739.9 | 7102.2 | 8857.3 | — |

¹ Figures for 1913 to 1924/25 are given by the Control Figures in Producers' Prices of 1913. Figures for 1925/26 to 1929/30 are given by Control Figures in Producers' Prices of 1926/27 and have here been adjusted to 1913 prices by application of the index of Producers' Prices for 1926/27.

² Include Refined Oil 1923/24 and 1924/25 only.

³ Rubber and Matches only.

⁴ Cotton only, 60-70 % of total textile probably.

⁵ Cotton and Wool only.

⁶ Probably not complete.

⁷ Total taken from pp. 334-5. See also pp. 286-7.

⁸ Planned National Economy from 1925/26-1929/30.

TABLE VIII. INDUSTRIAL PRODUCTION SERIES 1b.

| GROSS PRODUCTION OF LARGE SCALE | | | | | |
|---|-----------------------|--------|---------|---------|--|
| In Quantity, Years 1913 (1923, 1923/24) compiled from Control Figures 1929/30 pp. 501-2; year 1929/30 (estimated realization) compiled from | | | | | |
| Industry | Units | 1913 | 1924/25 | 1925/26 | |
| Coal | Million tons | 29.1 | 16.1 | 25.4 | |
| Oil | " " | 9.2 | 7.0 | 8.5 | |
| Iron ore | " " | 9.2 | 2.1 | 3.3 | |
| Manganese ore | " " | — | — | 0.4 | |
| Metal | | | | | |
| Cast iron | " " | 4.2 | 1.3 | 2.2 | |
| Rolled iron | " " | 3.5 | 1.3 | 2.2 | |
| Copper | 1000 " | — | — | — | |
| Zinc | " " | — | — | — | |
| Lead | " " | — | — | — | |
| Steel | Million " | 4.2 | 1.9 | — | |
| Locomotives for transport | Pieces | — | — | 214 | |
| Locomotives for industry | " " | — | — | — | |
| General machine construction | Million roubles | — | — | — | |
| Steam Turbines | " " | — | — | — | |
| Motors | " " | — | — | — | |
| Boilers | " " | — | — | — | |
| Agricultural machine constr. | " " | — | — | — | |
| Ploughs | 1000 pieces | — | — | 582 | |
| Sewing machines | " " | — | — | 59.4 | |
| Tractors | Pieces | — | — | 878 | |
| Building material | | | | | |
| Cement | Million brl. | — | — | 8.5 | |
| Glass | 1000 tons | — | — | — | |
| Bricks | Billion pieces | — | — | 1037 | |
| Chemical "A" | | | | | |
| Sulphuric acid | 1000 tons | — | — | — | |
| Superphosphate | " " | — | — | 79.5 | |
| Phosphor meal | " " | — | — | — | |
| Textile | | | | | |
| Cotton yarn | " " | — | — | 240.0 | |
| " fabrics | Million meters | 2238 | 1489 | 2021 | |
| Woollen " | " " | — | — | 65.4 | |
| Linen " | " " | — | — | 159.2 | |
| Silk " | " " | — | — | — | |
| Leather shoe | | | | | |
| Shoes | " pairs | — | — | 9.6 | |
| Chemical "B" | | | | | |
| Goloshes | " " | — | — | 25.1 | |
| Matches | " cases | 3.7 | 3.2 | — | |
| Paper | 1000 tons | — | — | — | |
| Woodworking | | | | | |
| Planks | Million cu.mtrs. | — | — | 5.9 | |
| Tree trunks | " " | — | — | — | |
| Com. lumber | " " | — | — | — | |
| Wood | " " | — | — | — | |
| Sowing mat. | " " | — | — | — | |
| Alimentary | | | | | |
| Gran. sugar | 1000 tons | 1356 | 437 | 1063 | |
| Veg. oil ¹ | Million " | — | — | — | |
| Conserves | 1000 " | — | — | — | |
| Cigarettes | billion p. | 25.9 | 26.4 | — | |
| Mahorka | 1000 boxes | — | — | — | |
| Salt | 1000 ton ² | 1946.0 | 1114.0 | 2365 | |

¹ Without cotton oil.² Confusion exists in the data as to whether this is thousand or million tons.

INDUSTRY PRE-WAR RUSSIA AND U. S. S. R.

1926/27; p. 320; year 1925/26-1929/30 (Plan) compiled from Control Figures
 Planned Economy Oct./Nov. 1930, pp. 344-5.

| 1926/27 | 1927/28 | 1928/29 | 1929/30 Plan | Modified Units | 1929/30 est. real. |
|---------|---------|---------|-----------------|-------------------|-----------------------|
| 32.1 | 35.4 | 40.6 | 51.6 | — | 47.5 |
| 10.3 | 11.8 | 13.7 | 16.2 | — | 17.7 |
| 4.8 | 6.0 | 7.1 | 10.8 | — | 10.1 |
| 0.5 | 0.7 | 1.4 | 1.7 | — | — |
| 3.0 | 3.3 | 4.0 | 5.5 | — | 5.0 |
| 2.8 | 3.3 | 3.8 | 4.7 | — | — |
| 21.3 | 28.3 | 38.0 | 48.5 | — | 51.0 |
| 2.3 | 3.2 | 4.8 | 8.8 | — | 4.4 |
| — | — | — | — | 1000 tons | 9.3 |
| — | — | — | — | — | 5.6 |
| 365 | 459 | 559 | 610 | — | 53.0 |
| 116 | 113 | 151 | 265 | — | — |
| 439.0 | 591.3 | 792.5 | 1144.9 | — | — |
| — | — | — | — | 1000 kw. Pieces | 195.7 |
| — | — | — | — | — | 85.0 |
| — | — | — | — | 1000 sq. mtrs. | 121.2 |
| 111.1 | 148.2 | 211.9 | 371.0 | — | — |
| 953 | 1136 | 1678 | 2690 | — | — |
| 57.2 | 39.8 | 85.9 | 273.0 | — | — |
| 993 | 1400 | 3000 | 10600 | — | — |
| 9.7 | 11.9 | 14.4 | 22.0 | — | 19.4 |
| — | 325.1 | 376.5 | 480.0 | — | 433.8 |
| 1398 | 1691 | 2880 | 5100 | — | 2.5 |
| 168.8 | 208.1 | 271.8 | 425.0 | — | 360.0 |
| 90.0 | 149.8 | 213.0 | 475.0 | — | 400.0 |
| 35.0 | 27.5 | 45.0 | 400.0 | — | 195.0 |
| 277.0 | 322.0 | 353.0 | 394 | — | — |
| 2452 | 2695 | 2952 | 3280 | — | 2594.1 |
| 83.7 | 96.4 | 113.2 | 131.2 | — | 128.9 |
| 174.9 | 167.1 | 171.8 | 210.2 | — | 200.0 |
| — | — | — | — | Mill. mtr. | 18.7 |
| 14.7 | 23.6 | 40.8 | 62.0 | — | — |
| 29.6 | 36.3 | 42.2 | 53.0 | — | 42.7 |
| 4.3 | 5.5 | 7.0 | 9.5 | — | 9.5 |
| — | 280.0 | 265.0 | 425.8 | — | 474.4 |
| 7.6 | 8.7 | 11.8 | 18.0 | — | — |
| — | 2.2 | 4.3 | 16.1 | — | — |
| — | — | — | — | Mill. cu. mtrs. | 108.0 |
| — | — | — | — | | 69.0 |
| — | — | — | — | | 23.4 |
| 870 | 1340 | 1280 | 1070 | — | 836 |
| 148.0 | 230.2 | 303.8 | 360.0 | 1000 tons | 335 |
| 23.0 | 28.0 | 47.0 | 84.0 | Mill. cans | 214.7 |
| 39.0 | 47.1 | 53.0 | 57.0 | — | 61.1 |
| 2842 | 3270 | 3200 | 3200 | — | 3067 |
| — | 2365 | 2670 | 3300 | — | — |

TABLE IX. INDUSTRIAL PRODUCTION SERIES 2.

| GROSS PRODUCTION OF PLANNED NATIONAL ECONOMY U. S. S. R. | | | | | | |
|---|---------------|---------------|---------------|----------------|-----------------|-------------------------------------|
| (In million roubles, Producers' prices of 1926/27). | | | | | | |
| Years 1925/26 to 1929/30 compiled from "Control Figures 1929/30", p. 503; Year 1929/30 compiled from "Planned Economy", October-November 1930, pp. 346-7. | | | | | | |
| | 1925/26 | 1926/27 | 1927/28 | 1928/29 | 1929/30 plan | 1929/30 estimated realization |
| 1. Coal | 256.3 | 326.0 | 362.0 | 417.9 | 527.0 | 489.7 |
| 2. Oil | 350.4 | 424.0 | 493.0 | 608.2 | 752.8 | 819.4 |
| 3. Mining of ores & minerals | 44.2 | 58.3 | 76.8 | 113.3 | 182.6 | 147.2 |
| 4. Metal & mach. building | 1206.0 | 1528.0 | 1897.8 | 2441.3 | 3369.5 | 3343.8 |
| 5. Electrotechnical mfg. | 98.5 | 134.9 | 182.5 | 271.0 | 460.4 | 472.8 |
| 6. Building materials | 184.7 | 243.8 | 291.1 | 385.4 | 599.4 | 418.4 |
| 7. Wood working | 408.2 | 505.0 | 640.9 | 920.2 | 650.0 | 675.9 |
| 8. Chemical basic (A) | 153.2 | 191.3 | 259.6 | 344.3 | 514.7 | 638.5 |
| 9. Chemical derived (B) | 271.3 | 309.0 | 388.1 | 469.4 | 674.0 | 656.0 |
| 10. Textiles | 2544.7 | 3028.2 | 3597.1 | 4098.0 | 4774.0 | 3765.4 |
| 11. Machine sewing | ¹ | 130.0 | 301.5 | 544.6 | 829.4 | 951.4 |
| 12. Leather-Shoe | 342.6 | 428.3 | 594.4 | 862.5 | 1157.5 | 1189.0 |
| 13. China-porcelaine | ² | 38.8 | 44.2 | 51.8 | 63.0 | 65.0 |
| 14. Paper | 121.3 | 129.8 | 147.1 | 185.8 | 220.8 | 246.1 |
| 15. Polygraphic | ² | 59.1 | 77.8 | 95.0 | 111.2 | 138.0 |
| 16. Alimentary (Food) | 926.3 | 861.5 | 1229.4 | 1303.3 | 1426.5 | 1423.7 |
| 17. Salt | 12.5 | 15.6 | 18.3 | 20.1 | 25.0 | 26.4 |
| 18. Others ³ | 394.0 | 350.9 | 462.7 | 561.1 | 753.7 | 1610.2 |
| TOTAL³ | 7313.2 | 8762.7 | 1106.5 | 15693.0 | 18092.0 | 17076.9 |

¹ Contrary to the Control Figures of previous years and the „Five Year Plan” in the sugar industry production planned by the national industry only (that is without rented and cooperative productions) has been shown.

² Columns 1-5 include "others" and balance of fuel beside coal and oil; column 6 includes Glass, Wood and Half Production.

³ Discrepancy in "total" due to application of index.

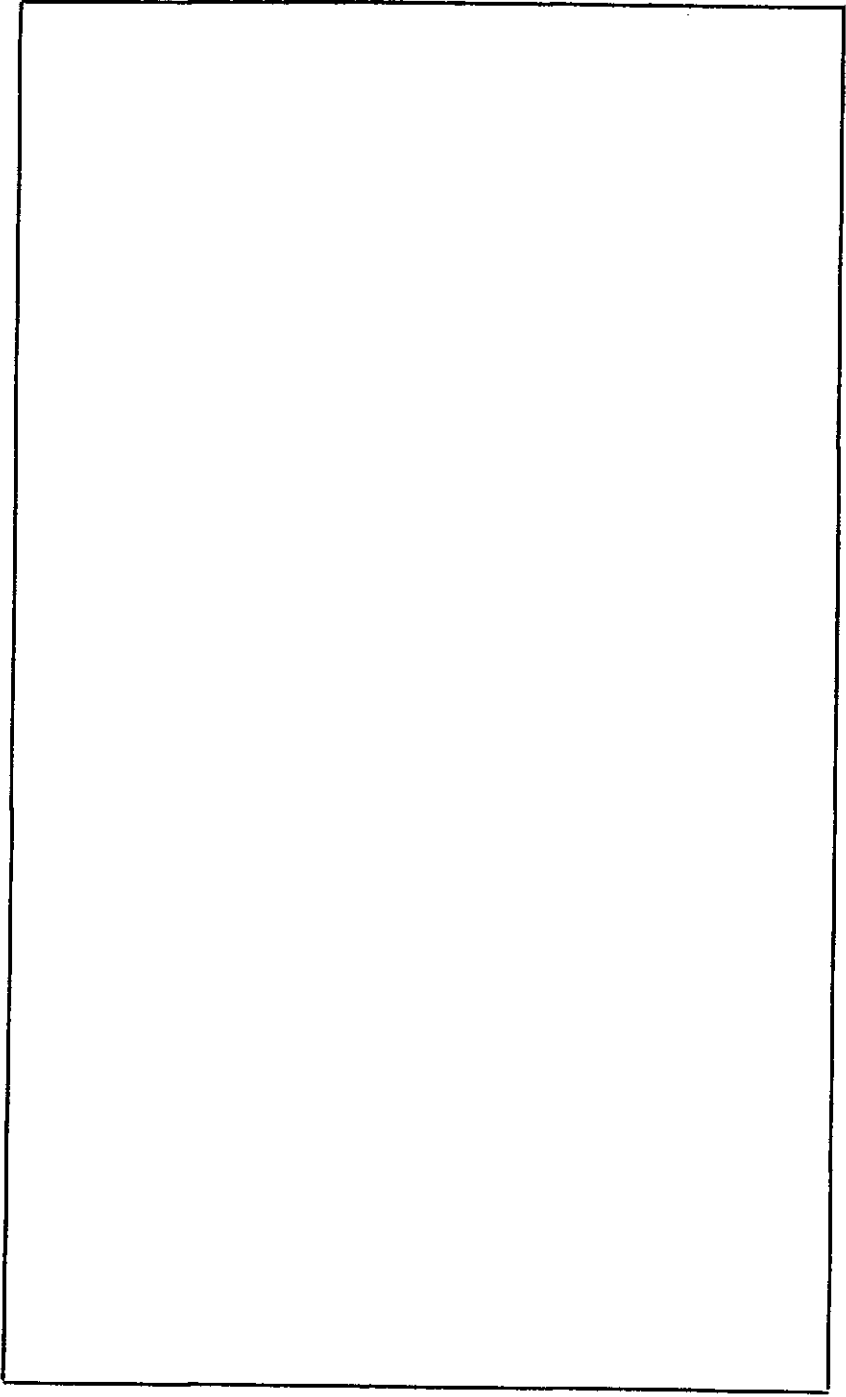


TABLE Xa. INDUSTRIAL PRODUCTION SERIES 3.

PRODUCTION OF LARGE SCALE INDUSTRY, PRE-WAR RUSSIA AND U.S.S.R., 1913-1922/23.

In Quantity.

Compiled from: Central Statistical Department of the R. S. F. S. R.; Statistical Handbook, 1913-17, Moscow, 1922; Statistical Yearbook, 1918-20; Statistical Handbook, U. S. S. R., 1928, Moscow, 1929; Encyclopedia of Russian Exports, Soviet Union Trade Delegation, Berlin, 1925.

| Industries | Units | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1922/23 |
|--------------------------------|---------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Coal incl. | mil. poods | 2,200 | 2,175 | 1,905 | 1,995 | 1,814 | 721 | 516 | 475 | 474 | 502 | 591 |
| Donetz coal | " " | 1,543 | 1,684 | 1,627 | 1,751 | 1,510 | 338 | 273 | 330 | — | 294.2 | — |
| Naphtha | " " | 563.4 | 556.9 | 568.1 | 492.1 | 422.6 | 213.4 | 256.3 | 212.8 | 222.3 | 272.9 | 294.2 |
| Peat | " " | 89.0 | 100.7 | 86.5 | 83.6 | 71.0 | 61.1 | 66.5 | 84.7 | 112.6 | 118.7 | 129.2 |
| Iron Ore | mil. tons | 8.8 | — | — | — | — | 0.772 | 0.188 | 0.164 | 0.129 | 0.244 | 0.481 |
| Cast iron | " " | 4,635 | 4,257 | 3,690 | 3,738 | 3,000 | 0.515 | 0.113 | 0.115 | 0.116 | 0.188 | 0.300 |
| Pig iron | " " | — | — | — | — | — | 0.402 | 0.199 | 0.161 | 0.182 | 0.317 | 0.587 |
| Steel | " " | 4,868 | 4,733 | 4,900 | 4,279 | 3,082 | 0.404 | 0.199 | 0.162 | — | — | — |
| Finished iron & steel products | " " | 5,404 | 5,392 | 4,524 | 4,698 | — | — | — | — | — | — | — |
| Manganese | " " | 1254.7 | 906.0 | 537.6 | 467.0 | 380.1 | 145.6 | 54.8 | 92.0 | 9.0 | 104.0 | 271.2 |
| Copper | " " | 507.3 | 377.0 | 305.6 | 246.5 | 188.9 | 134.0 | 63.0 | 4.1 | 4.1 | 13.0 | 61.0 |
| Asbestos | " " | 22.51 | 15.91 | 10.18 | 12.18 | 6.27 | 1.36 | 0.68 | 1.45 | 1.87 | 3.31 | 5.44 |
| Salt | mil. | 2,195 | 2,054 | — | — | — | 0.192 | 0.61 | 0.765 | 0.983 | 0.743 | 1.173 |
| Gold | tons | 40.02 | 43.22 | 39.80 | 34.01 | 27.21 | 25.94 | 24.19 | 3.18 | 2.76 | 9.17 | 10.91 |
| Silver | " " | 9.38 | 9.38 | 19.95 | 16.50 | 15.00 | — | — | — | — | — | — |
| Platinum | poods | 299.0 | 298.0 | 296.0 | 150.0 | 187.0 | 82.0 | 75.0 | 21.0 | 12.0 | 42.0 | — |
| Matches | mil. cases | 4.10 | 4.50 | 3.06 | 3.06 | 1.61 | 1.02 | 1.01 | 0.633 | 0.782 | 1.030 | 1.40 |
| Rubbergoods in values | roubles, 1919 | 191.5 | 117.8 | 106.3 | 127.2 | 134.4 | 25.32 | 10.8 | 6.18 | 9.99 | — | — |
| Superphosphates | 1000 tons | 27.52 | 17.64 | — | — | — | — | 16.33 | 9.10 | 5.28 | 7.52 | 16.49 |
| Naphtha products | mil. | 1,323 | 1,323 | 1,240 | — | — | — | 1.439 | 2.341 | 1.673 | 2.986 | 3.048 |
| Granulated Sugar | " " | 1,769 | 1,082 | 1,324 | — | — | 0.333 | 0.079 | 0.090 | 0.050 | 0.186 | 0.196 |
| Tobacco | " " | 121.8 | 134.0 | 117.1 | 121.7 | — | — | — | — | — | — | — |
| Mahorica | " " | 122.6 | 126.4 | 124.0 | — | — | 28.5 | 18.7 | 21.3 | 11.9 | 13.3 | 19.5 |
| Cigarettes | mil. pieces | — | — | — | 31.98 | — | 12.7 | 10.3 | 4.85 | 5.15 | 12.59 | 10.79 |

TABLE Xa. INDUSTRIAL PRODUCTION SERIES 3.

| PRODUCTION OF LARGE SCALE INDUSTRY, PRE-WAR RUSSIA AND U. S. S. R., 1913—1922/23. | | | | | | | | | | | |
|---|-----------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| In Quantity. In percent of 1913. | | | | | | | | | | | |
| Compiled from: Central Statistical Department of the R. S. F. S. R.; Statistical Handbook, 1913-17, Moscow, 1922; Statistical Yearbook, 1918-20; Statistical Handbook U. S. S. R. 1928, Moscow, 1929; Encyclopedia of Russian Exports, Soviet Union Trade Delegation, Berlin, 1925. | | | | | | | | | | | |
| Industries | Units | Percent of 1913 | | | | | | | | | |
| | | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1922/23 |
| Coal incl. | mil. poods | 98.9 | 86.6 | 90.4 | 82.4 | 32.8 | 23.5 | 21.6 | 21.5 | 22.8 | 26.9 |
| Donetz coal | " | 109.5 | 105.5 | 113.5 | 97.9 | 21.9 | 17.7 | 21.4 | — | — | — |
| Naphtha | " | 98.9 | 100.9 | 87.4 | 75.0 | 38.0 | 45.5 | 37.7 | 39.5 | 48.5 | 52.4 |
| Peat | " | 120.2 | 97.2 | 94.0 | 79.8 | 68.6 | 74.7 | 95.2 | 126.5 | 133.5 | 145.2 |
| Iron Ore | " tons | — | — | — | — | 8.76 | 2.1 | 1.86 | 1.46 | 2.78 | 54.7 |
| Cast Iron | " | 91.8 | 79.4 | 80.6 | 64.6 | 11.1 | 2.44 | 2.47 | 2.50 | 4.05 | 6.45 |
| Pig Iron | " | — | — | — | — | 8.67 | 4.29 | 3.47 | 3.93 | 6.83 | 12.7 |
| Steel | " | 97.1 | 100.6 | 87.8 | 63.2 | 8.3 | 4.10 | 3.3 | — | — | — |
| Finished Iron & Steel | " | — | — | — | — | — | — | — | — | — | — |
| Products | " | 98.0 | 83.7 | 87.0 | — | — | — | — | — | — | — |
| Manganese | " 1000 | 72.2 | 42.0 | 37.2 | 30.2 | 11.6 | 4.37 | 7.32 | 0.71 | 8.30 | 21.6 |
| Copper | " | 74.4 | 60.2 | 48.4 | 37.3 | 26.5 | 12.4 | 0.80 | 0.80 | 2.56 | 12.0 |
| Asbestos | " | 70.7 | 45.2 | 54.5 | 27.9 | 6.05 | 3.2 | 6.44 | 8.31 | 14.7 | 24.2 |
| Salt | mil. | 93.6 | — | — | — | 6.1 | 27.8 | 34.8 | 44.8 | 33.8 | 53.4 |
| Gold | " tons | 108.0 | 99.5 | 85.0 | 68.0 | 64.8 | 60.5 | 7.95 | 6.9 | 22.9 | 27.2 |
| Silver | " | 100.0 | 213.0 | — | — | — | — | — | — | — | — |
| Platinum | " poods | 99.7 | 68.9 | 50.1 | 62.5 | 27.4 | 25.1 | 7.0 | 4.0 | 13.8 | — |
| Matches | " mil. cases | 109.7 | 74.6 | 74.6 | 39.2 | 24.9 | 24.6 | 15.5 | 19.07 | 25.1 | 34.2 |
| Rubbergoods in values | " roubles, 1913 | 97.0 | 87.4 | 104.7 | 110.5 | 20.8 | 8.9 | 5.9 | 8.2 | 27.3 | 60.0 |
| Superphosphates | " 1000 tons | 64.2 | — | 246.0 | — | — | 59.4 | 33.1 | 19.2 | — | 230.5 |
| Naphtha Products | " mil. | 100.0 | 93.8 | — | — | 109.0 | 177.0 | 126.5 | 222.0 | 231.0 | 110.7 |
| Granulated Sugar | " | 61.2 | 74.8 | — | — | 18.8 | 4.46 | 5.04 | 2.82 | 105.0 | — |
| Tobacco | " 1000 | 110.5 | 96.1 | 100.0 | — | — | — | — | — | — | — |
| Mahorka | " | 103.2 | 101.2 | — | — | — | — | — | — | — | — |
| Cigarettes | " mil. pieces | — | — | — | — | 23.3 | 15.3 | 17.4 | 9.7 | 10.8 | 85.0 |
| | | — | — | — | — | 39.7 | 80.7 | 38.2 | 40.6 | 99.2 | 15.9 |

TABLE XI. INDUSTRIAL PRODUCTION SERIES 4.

| GROSS PRODUCTION LARGE SCALE AT AVERAGE WHOLESALE | | | | | | |
|--|---------|-----------|-----------|-----------|-----------|-----------|
| (Compiled from the Monthly Statistical Bulletin | | | | | | |
| In thousand | | | | | | |
| | Years | October | November | December | January | February |
| Coal | 1928/29 | 32,647 | 31,428 | 35,127 | 34,224 | 32,663 |
| | 1929/30 | 39,070 | 38,041 | 42,476 | 43,482 | 42,224 |
| Naphtha | 1928/29 | 30,800 | 29,957 | 30,826 | 30,303 | 25,851 |
| | 1929/30 | 35,167 | 34,841 | 36,791 | 35,086 | 31,790 |
| Ore | 1928/29 | 7,328 | 6,606 | 6,980 | 7,416 | 6,857 |
| | 1929/30 | 9,901 | 8,963 | 10,034 | 10,032 | 9,817 |
| Salt | 1928/29 | 1,776 | 1,112 | 1,003 | 970 | 914 |
| | 1929/30 | 2,184 | 1,854 | 1,444 | 1,430 | 1,303 |
| Silicate | 1928/29 | 26,348 | 24,855 | 25,540 | 27,191 | 25,233 |
| | 1929/30 | 32,492 | 31,185 | 34,216 | 33,252 | 32,912 |
| Metal | 1928/29 | 191,268 | 184,731 | 202,727 | 208,026 | 200,648 |
| | 1929/30 | 248,060 | 241,981 | 284,561 | 286,056 | 294,048 |
| Electrotechn. mfg. | 1928/29 | 21,668 | 19,565 | 21,794 | 21,278 | 22,427 |
| | 1929/30 | 28,288 | 28,060 | 34,224 | 35,575 | 40,574 |
| Textile | 1928/29 | 321,617 | 285,357 | 296,132 | 305,913 | 307,361 |
| | 1929/30 | 372,152 | 321,753 | 354,599 | 341,763 | 340,077 |
| Clothing | 1928/29 | 52,186 | 50,135 | 49,630 | 47,172 | 47,942 |
| | 1929/30 | 75,803 | 69,381 | 77,716 | 72,946 | 76,127 |
| Leather | 1928/29 | 56,613 | 52,330 | 54,200 | 56,076 | 46,285 |
| | 1929/30 | 78,740 | 69,345 | 82,250 | 83,122 | 84,843 |
| Chemical | 1928/29 | 61,928 | 60,686 | 64,757 | 68,273 | 64,679 |
| | 1929/30 | 85,845 | 82,522 | 92,529 | 94,356 | 94,607 |
| Alimentary non-stop pr. | 1928/29 | 61,169 | 53,970 | 53,611 | 57,004 | 55,299 |
| | 1929/30 | 67,883 | 60,757 | 65,334 | 67,414 | 64,143 |
| Woodworking | 1928/29 | 28,052 | 24,007 | 25,687 | 28,083 | 28,159 |
| | 1929/30 | 39,639 | 32,705 | 37,562 | 42,720 | 42,597 |
| Polygraphic | 1928/29 | 5,869 | 5,451 | 5,310 | 5,204 | 5,247 |
| | 1929/30 | 7,304 | 6,299 | 7,002 | 6,928 | 6,787 |
| Paper | 1928/29 | 14,250 | 13,043 | 13,890 | 14,218 | 14,349 |
| | 1929/30 | 19,049 | 17,465 | 19,699 | 19,748 | 18,739 |
| Seasonal alimentary pr. | 1928/29 | 18,187 | 43,249 | 51,618 | 52,979 | 49,373 |
| | 1929/30 | 16,879 | 44,500 | 61,281 | 61,136 | 52,361 |
| Total production | 1928/29 | 988,503 | 943,175 | 997,608 | 1,023,291 | 996,792 |
| | 1929/30 | 1,229,236 | 1,163,704 | 1,318,731 | 1,312,877 | 1,308,055 |
| Including Means of production | 1928/29 | 413,489 | 395,000 | 426,107 | 434,328 | 412,411 |
| | 1929/30 | 528,128 | 515,471 | 584,468 | 593,298 | 593,494 |
| Consumption goods | 1928/29 | 575,014 | 548,175 | 571,501 | 588,963 | 584,381 |
| | 1929/30 | 701,108 | 648,233 | 734,263 | 719,579 | 709,561 |

INDUSTRY 1928/29-1929/30.

SELLING PRICES OF 1926/27.

July 1930. V. 10. No. 85. pp. 15-17.)

roubles by months.

| March | April | May | June | July | August | Septem-ber | Total for the year | Total for 11 months fisc. yr. |
|-----------|-----------|-----------|-----------|-----------|-----------|------------|--------------------|-------------------------------|
| 35,754 | 34,467 | 27,953 | 31,740 | 33,012 | 32,775 | 32,460 | 394,250 | 361,790 |
| 47,403 | 43,768 | 39,927 | 39,666 | 33,598 | 30,139 | | | 439,794 |
| 27,804 | 27,987 | 33,531 | 32,593 | 35,665 | 35,845 | 34,604 | 375,766 | 341,162 |
| 38,146 | 41,050 | 43,058 | 41,394 | 44,024 | 45,400 | | | 341,162 |
| 7,797 | 8,116 | 7,658 | 9,065 | 9,737 | 9,321 | 9,750 | 96,641 | 86,891 |
| 12,366 | 11,445 | 11,940 | 12,738 | 11,910 | 12,081 | | | 121,217 |
| 1,123 | 1,252 | 1,590 | 2,087 | 2,636 | 2,834 | 2,951 | 20,248 | 17,297 |
| 1,470 | 1,734 | 1,886 | 2,262 | 2,738 | 2,750 | | | 21,055 |
| 27,251 | 28,889 | 24,439 | 26,295 | 28,151 | 29,364 | 31,088 | 324,644 | 293,556 |
| 36,927 | 37,086 | 35,852 | 36,561 | 35,817 | 35,438 | | | 381,738 |
| 226,603 | 237,138 | 214,042 | 229,884 | 214,715 | 237,488 | 281,695 | 2,628,965 | 2,347,270 |
| 349,375 | 318,733 | 323,270 | 323,297 | 301,495 | 312,512 | | | 3,283,888 |
| 26,817 | 25,528 | 24,701 | 26,250 | 26,137 | 27,478 | 33,822 | 291,465 | 257,643 |
| 46,593 | 44,771 | 46,154 | 43,394 | 38,855 | 48,485 | | | 434,973 |
| 314,937 | 357,771 | 269,675 | 317,351 | 269,329 | 317,609 | 350,199 | 3,713,251 | 3,363,052 |
| 362,527 | 363,531 | 246,056 | 240,339 | 171,841 | 178,854 | | | 3,293,492 |
| 50,319 | 60,212 | 49,628 | 45,199 | 54,731 | 67,300 | 77,780 | 652,234 | 574,454 |
| 93,172 | 94,675 | 95,827 | 73,601 | 84,370 | 99,707 | | | 913,325 |
| 61,859 | 70,824 | 64,969 | 68,653 | 70,109 | 73,583 | 78,594 | 764,095 | 685,501 |
| 96,220 | 96,677 | 95,700 | 93,707 | 88,630 | 98,051 | | | 967,285 |
| 70,736 | 77,055 | 63,054 | 57,207 | 69,648 | 76,679 | 79,709 | 814,111 | 734,402 |
| 107,762 | 103,650 | 100,194 | 73,776 | 81,812 | 95,103 | | | 1,012,156 |
| 55,867 | 59,538 | 47,483 | 45,823 | 54,548 | 62,534 | 65,559 | 726,405 | 606,846 |
| 71,675 | 68,915 | 69,576 | 65,976 | 62,447 | 76,890 | | | 741,310 |
| 31,206 | 29,675 | 18,844 | 27,785 | 37,422 | 41,819 | 41,284 | 362,023 | 320,739 |
| 49,966 | 43,082 | 33,448 | 44,156 | 49,002 | 48,658 | | | 463,537 |
| 5,393 | 5,882 | 4,959 | 5,225 | 5,323 | 6,215 | 6,648 | 66,726 | 60,078 |
| 7,368 | 7,132 | 6,695 | 6,645 | 6,913 | 7,128 | | | 76,201 |
| 16,062 | 16,692 | 14,590 | 16,717 | 18,306 | 17,877 | 18,370 | 188,364 | 169,994 |
| 21,158 | 19,932 | 19,276 | 20,652 | 21,784 | 20,714 | | | 218,216 |
| 54,446 | 55,241 | 47,111 | 25,496 | 14,006 | 9,464 | 9,533 | 430,703 | 421,170 |
| 47,397 | 31,785 | 19,021 | 12,939 | 10,479 | 6,413 | | | 364,191 |
| 1,072,366 | 1,157,838 | 977,221 | 1,030,693 | 1,006,785 | 1,118,820 | 1,224,051 | 12,537,143 | 11,313,092 |
| 1,477,022 | 1,416,486 | 1,277,361 | 1,225,168 | 1,140,085 | 1,215,975 | | | 14,084,700 |
| 462,497 | 475,411 | 435,441 | 469,962 | 469,970 | 507,534 | 558,577 | 5,460,727 | 4,902,150 |
| 702,489 | 662,281 | 657,941 | 668,922 | 641,651 | 666,543 | | | 6,819,686 |
| 609,869 | 682,427 | 541,780 | 560,731 | 536,815 | 611,286 | 665,474 | 7,076,416 | 6,410,942 |
| 774,533 | 754,205 | 619,420 | 556,246 | 498,434 | 549,432 | | | 7,265,014 |

TABLE XII. AGRICULTURAL PRODUCTION SERIES 1a.

GROSS PRODUCTION OF AGRICULTURE, PRE-WAR RUSSIA AND U.S.S.R.

Without Forestry

(In million Roubles, Producers' Prices of 1913¹)

Year 1913, Control Figures 1925/26, pp. 62-63; years 1923/24 and 1924/25 compiled from Control Figures 1926/27, p. 339; years 1925/26 to 1929/30 compiled from Control Figures 1929/30 pp. 534/7.

| | 1913 | 1923/24 | 1924/25 | 1925/26 | 1926/27 | 1927/28 | 1928/29 | 1929/30 plan |
|--|---------|---------|---------|---------|---------|---------|---------|-----------------|
| Grains | 4449.8 | 2529.6 | 2306.6 | 2416.7 | 2599.3 | 2406.0 | 2378.6 | 2444.5 |
| Potatoes | 438.6 | 524.3 | 509.3 | 675.3 | 748.1 | 709.0 | 778.5 | 817.3 |
| Vegetables and fruits | 835.9 | 450.7 | 567.2 | 785.7 | 804.6 | 808.3 | 897.4 | 915.8 |
| Hay, Sown Grass, Ears, Pulp & Straw, etc. | 2433.4 | 1516.9 | 1490.2 | 2480.3 | 2775.8 | 2669.3 | 2812.4 | 2811.3 |
| Ungrained Cotton | 183.0 | 37.9 | 91.1 | 106.8 | 105.7 | 135.7 | 155.2 | 184.5 |
| Oil-Seeds | 164.3 | 178.9 | 164.6 | 173.3 | 140.3 | 165.8 | 160.7 | 175.8 |
| Flax | 89.2 | 89.2 | 89.2 | 89.4 | 76.5 | 68.1 | 87.0 | 105.5 |
| Hemp | 65.0 | 69.7 | 63.0 | 115.9 | 103.5 | 122.8 | 126.3 | 124.4 |
| Other technical Cultures | 139.6 | 49.9 | 53.4 | 109.4 | 86.1 | 117.0 | 107.7 | 96.2 |
| Sugar Beets | 27.7 | 27.7 | 31.7 | 70.4 | 49.5 | 80.9 | 78.8 | 65.2 |
| Tobacco | 16.9 | 16.9 | 16.1 | 25.0 | 21.2 | 23.8 | 18.3 | 21.3 |
| Mahorka | 5.3 | 5.3 | 5.6 | 14.0 | 15.4 | 12.3 | 10.6 | 9.7 |
| Meat and Fat | 1021.0 | 576.1 | 746.2 | 962.2 | 1072.5 | 1163.8 | 1372.3 | 1121.0 |
| Dairy and Milk Products | 1134.0 | 892.7 | 944.8 | 1153.5 | 1249.7 | 1294.9 | 1241.7 | 1350.8 |
| Fowl | 129.2 | 59.4 | 88.8 | 147.1 | 124.9 | 140.9 | 150.6 | 158.1 |
| Eggs | 131.1 | 75.7 | 102.4 | 172.7 | 194.9 | 213.7 | 208.0 | 239.2 |
| Raw leather & other raw prod. | 317.8 | 198.6 | 237.5 | 330.8 | 347.7 | 381.2 | 429.7 | 413.3 |
| Manure | 276.4 | 195.2 | 185.4 | 218.5 | 227.5 | 233.7 | 234.4 | 234.4 |
| Others | 23.0 | 412.8 | 348.0 | 345.8 | 384.3 | 293.6 | — | 52.8 |
| Bee & Silk Culture | 23.0 | 11.0 | 12.5 | 345.8 | 384.3 | 293.6 | — | 52.8 |
| Growth of Herd | 401.8 | 395.5 | 395.5 | 345.8 | 384.3 | 293.6 | — | 52.8 |
| TOTAL Agricultural Production ² | 11391.3 | 7838.0 | 7987.8 | 10275.9 | 11041.7 | 10889.7 | 11697.0 | 11399.3 |

¹ Figures for 1913 to 1925/26 are given by the Control Figures in Producers' Prices of 1913. Figures for 1926/27 to 1929/30 are given by Control Figures in Producers' Prices of 1926/27 and here have been corrected by application of the index of Producers' Prices for 1926/27 with 1913 prices as base. See Appendix for discussion of index used.

² Discrepancy in totals due to application of index.

TABLE XIII. AGRICULTURAL PRODUCTION SERIES 1b.

| | | In Quantity. | | | | | 1930 Plan | | | | |
|---|-----------|------------------|-----------|----------------|----------|----------|--------------|----------|----------|----------|--------------|
| | | In Million Foods | | | | | | | | | |
| Compared from Control Figures 1926/27, pp. 340, 341, for years 1913, 1923/24-1924/25, From Control Figures 1929/30, pp. 532, 533, for years 1925-1930. | | 1913 | 1923/24 | 1924/25 | Unit | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 Plan |
| Grains | (5,448.7) | (3,364.2) | (3,067.6) | mill. quintals | 746.7 | 783.8 | 735.8 | 726.7 | 702.5 | 889.0 | |
| Potatoes | 1,828.8 | 2,184.7 | 2,122.0 | mill. tons | 395.4 | 438.0 | 415.1 | 455.8 | 478.5 | 512.5 | |
| Vegetables and Fruit | 1,635.0 | 1,286.6 | 1,551.1 | " " | 1,138.3 | 1,281.5 | 1,169.6 | 1,182.9 | 1,197.9 | | |
| Straw Ears and Pulp | 8,404.0 | 4,883.5 | 4,447.0 | " " | 809.2 | 895.9 | 870.5 | 934.5 | 907.3 | | |
| Hay and Sown Grass | 4,839.3 | 3,532.6 | 3,565.4 | 1000 quint. | 5,651.0 | 5,594.0 | 7,183.0 | 7,220.0 | 9,766.0 | 1,451.9 | |
| Cotton Unginned | 38.6 | 9.4 | 22.6 | " " | 3,623.0 | 3,100.0 | 2,760.0 | 3,524.0 | 4,277.5 | | |
| Flax | 27.7 | 14.6 | 18.7 | " " | 4,849.0 | 4,327.0 | 5,135.0 | 5,282.0 | 5,203.0 | 5,550.0 | |
| Hemp | 24.9 | 20.8 | 18.8 | " " | 33,777.0 | 26,370.0 | 31,998.0 | 32,838.0 | 33,610.0 | 39,791.0 | |
| Oil Seeds | 155.9 | 132.9 | 140.7 | mill. | 90.7 | 63.7 | 104.1 | 101.4 | 84.0 | 149.0 | |
| Sugar Beets | 652.4 | 173.9 | 198.4 | 1000 " | 435.2 | 367.9 | 412.9 | 318.6 | (370.0) | 618.0 | |
| Tobacco | 1.7 | 1.6 | 1.5 | " " | 1,430.0 | 1,573.0 | 1,262.0 | 1,081.0 | 990.0 | 1,540.0 | |
| Mahorka | 4.6 | 3.9 | 4.1 | " tons | 34,192.0 | 38,018.0 | 41,251.0 | 48,643.0 | 39,733.0 | | |
| Meat | 195.5 | 126.0 | 163.2 | mill. | 288.0 | 312.0 | 323.3 | 310.0 | 337.2 | | |
| Milk | 1,492.0 | 1,487.8 | 1,574.6 | 1000 " | 3,030.0 | 2,572.0 | 2,900.0 | 3,100.0 | 3,255.0 | | |
| Powl | 17.0 | 9.9 | 14.8 | mill. units | 8,464.0 | 9,550.0 | 10,459.0 | 10,195.0 | 11,724.0 | | |
| Eggs | 28.0 | 13.0 | 17.0 | 1000 " | 10,944.0 | 12,102.0 | 13,359.0 | 16,612.0 | 14,068.0 | | |
| Manure | 23,023.0 | 16,665.0 | 15,442.0 | " " | 57,178.0 | 61,776.0 | 68,920.0 | 78,903.0 | 74,760.0 | | |
| Large Hides | | | | 1000 quint. | 1,428.0 | 1,594.0 | 1,676.0 | 1,747.0 | 1,800.0 | | |
| Small Hides | | | | " " | | | | | | | |
| Wool | | | | | | | | | | | |

TABLE XIV. AGRICULTURAL PRODUCTION SERIES 2.

| GROSS PRODUCTION OF AGRICULTURE, U. S. S. R. | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| In Million Roubles. Producers' Prices of 1926/27. | | | | | |
| See Control Figures 1929/30, pp. 534-7. | | | | | |
| | 1925/26 | 1926/27 | 1927/28 | 1928/29 | 1929/30 |
| A. PLANT CULTURE. | | | | | |
| 1. Rye | 1026.7 | 1066.4 | 1089.1 | 852.8 | 901.8 |
| 2. Wheat | 1390.2 | 1624.0 | 1379.1 | 1409.8 | 1313.2 |
| 3. Barley | 200.1 | 183.0 | 153.9 | 187.8 | 251.4 |
| 4. Oats | 505.1 | 644.9 | 552.4 | 683.9 | 689.3 |
| 5. Buckwheat | 84.1 | 73.9 | 90.8 | 88.2 | 88.2 |
| 6. Millet | 157.1 | 76.9 | 113.2 | 102.8 | 125.3 |
| 7. Corn | 141.6 | 108.2 | 112.4 | 107.6 | 136.4 |
| 8. Other grains | 103.2 | 104.4 | 101.3 | 118.3 | 144.0 |
| TOTAL GRAINS. | 3608.1 | 3880.8 | 3592.2 | 3551.2 | 3649.6 |
| 9. Cotton | 159.4 | 157.8 | 202.6 | 231.8 | 275.4 |
| 10. Sugar Beets | 105.2 | 73.9 | 120.8 | 117.6 | 97.4 |
| 11. Flax Fibre | 133.5 | 114.2 | 101.7 | 129.9 | 157.6 |
| 12. Hemp Fibre | 173.1 | 154.5 | 183.3 | 188.6 | 185.7 |
| 13. Oil yielding plants | 258.7 | 209.5 | 247.6 | 253.4 | 262.5 |
| 14. Tobacco | 37.4 | 31.6 | 35.5 | 27.4 | 31.8 |
| 15. Mahorka | 20.9 | 23.0 | 18.4 | 15.8 | 14.5 |
| 15. Potatoes | 1008.3 | 1116.9 | 1058.5 | 1162.3 | 1220.2 |
| 17. Vegetables | 883.8 | 873.6 | 941.4 | 999.7 | 1020.0 |
| 18. Fruit and grapes | 289.3 | 327.7 | 265.4 | 340.2 | 347.3 |
| 19. Straw and barn sweepings | 1576.8 | 1783.8 | 1612.0 | 1632.2 | 1660.5 |
| 20. Hay | 1919.8 | 2119.0 | 1979.3 | 2105.5 | 1999.8 |
| 21. Sown grass | 206.5 | 241.5 | 394.0 | 461.5 | 537.0 |
| TOTAL PLANT CULTURE | 10380.5 | 11108.1 | 10752.7 | 11217.1 | 11459.3 |
| including technical plants | 888.2 | 764.5 | 909.9 | 964.5 | 1024.9 |
| B. CATTLE RAISING | | | | | |
| 1. Meat | 1440.2 | 1601.3 | 1737.5 | 2048.8 | 1673.6 |
| 2. Milk | 1722.2 | 1865.8 | 1933.3 | 1853.9 | 2016.7 |
| 3. Fowls meat | 219.7 | 186.5 | 210.3 | 224.8 | 236.0 |
| 4. Eggs | 257.9 | 291.0 | 319.0 | 310.6 | 357.2 |
| 5. Large Hides | 114.9 | 127.1 | 140.3 | 174.4 | 147.7 |
| 6. Small hides | 140.1 | 151.4 | 168.9 | 193.3 | 183.2 |
| 7. Wool | 154.1 | 172.0 | 180.8 | 188.5 | 194.2 |
| 8. Others | 69.9 | 68.6 | 79.1 | 85.3 | 91.9 |
| 9. Growth of herd | + 516.3 | + 573.7 | + 402.5 | - 78.8 | + 309.3 |
| 10. Manure | 326.2 | 339.7 | 348.9 | 350.0 | 350.0 |
| TOTAL CATTLE RAISING | 4961.5 | 5377.1 | 5520.6 | 5350.8 | 5559.8 |
| GENERAL TOTAL | 15342.0 | 16485.2 | 16273.3 | 16567.9 | 17019.1 |

TABLE XV.

| RAILWAY OPERATIONS, 1913 and 1925-1931. | | | | | | | | |
|--|-------|---------------|---------------|---------------|---------------|-------------------------------------|-------------------------|---|
| Pre-war Russia and U. S. S. R. | | | | | | | | |
| Taken from Economic Handbook of Soviet Union, New-York, 1931, p. 68. | | | | | | | | |
| | 1913 | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | 1929/ 1930 (prelim- inary) | 1931 (prog- ram.) | 1932/ 1933 (orig. 5-year Plan.) |
| Length of Railway Lines in operation (thousand Kilometers) | 58.5 | 74.6 | 75.7 | 76.9 | 77.6 | 78.0 | 81.0 | 90.0 |
| Railway Freight opera- tions (bill. ton-kilometers) | 65.7 | 68.9 | 81.7 | 88.2 | 106.7 | 138.0 | 186.4 | 162.7 |
| Railway Passenger opera- tions (bill. passenger-kilo- meters) | 25.2 | 23.4 | 22.1 | 23.6 | 29.5 | 46.8 | 68.0 | 35.4 |
| Freight carried by Rail- ways (mill. metric tons) | 132.4 | 116.7 | 135.9 | 150.6 | 176.5 | 234.9 | 330.0 | 281.0 |
| Passengers carried by Railways (millions) | 184.8 | 262.7 | 254.2 | 280.8 | 343.2 | 510.2 | 720.0 | 455.0 |

TABLE XVI.

| CAPACITY OF POWER PLANTS. | | | | |
|--|-----------------------|--|------------------------------------|-------|
| Pre-war Russia and U. S. S. R. | | | | |
| (in Thousand Kw.) | | | | |
| Compiled from Control Figures 1929/1930, p. 496. Supplemented by Economic Handbook of the Soviet Union, p. 52. | | | | |
| Year | Regional Power Plants | Factory and other special Power Plants | Local including Rural Power Plants | TOTAL |
| 1913 | 250 | 770 | 190 | 1210 |
| 1924/25 | 338 | 793 | 233 | 1364 |
| 1925/26 | 395 | 750 | 257 | 1452 |
| 1926/27 | 510 | 865 | 237 | 1662 |
| 1927/28 | 528 | 981 | 283 | 1792 |
| 1928/29 | 662 | 1156 | 337 | 2155 |
| 1929/30 | 1300 | 1100 | 485 | 2885 |

TABLE XVII.

| OUTPUT OF ELECTRIC CURRENT. | | | | |
|--|-----------------------|--|------------------------------------|-------|
| Pre-war Russia and U. S. S. R. | | | | |
| (in Million K. W. H.) | | | | |
| Compiled from the Control Figures 1929/30, p. 496, and the Economic Handbook of the Soviet Union, p. 52. | | | | |
| Year | Regional Power Plants | Factory and other special Power Plants | Local including Rural Power Plants | TOTAL |
| 1913 | 431 | 1255 | 259 | 1945 |
| 1924/25 | 866 | 1142 | 266 | 2274 |
| 1925/26 | 1121 | 1789 | 360 | 3270 |
| 1926/27 | 1429 | 2212 | 457 | 4098 |
| 1927/28 | 1814 | 2768 | 578 | 5160 |
| 1928/29 | 2315 | 3140 | 753 | 6208 |
| 1929/30 | 3414 | 3340 | 960 | 7714 |

TABLE XVIII. GROSS PRODUCTION OF THE NATIONAL ECONOMY OF THE SOVIET UNION.¹

| (in billion roubles at pre-war prices.) | | | | | | | |
|---|--------------|--------------------------|-------------|------------------|---------------|-------------|-------|
| Years | All Industry | Manufacturing Industries | Agriculture | Total Production | Ratio to 1913 | | |
| | | | | | Industry | Agriculture | TOTAL |
| 1913 | 8.43 | 6.39 | 11.61 | 20.04 | 100.0 | 100.0 | 100.0 |
| 1914 | 8.43 | 6.43 | 11.36 | 19.79 | 100.0 | 97.8 | 98.8 |
| 1915 | 8.66 | 7.06 | 11.75 | 20.41 | 102.7 | 101.2 | 101.8 |
| 1916 | 9.22 | 7.42 | 11.50 | 20.72 | 109.5 | 99.0 | 103.4 |
| 1917 | 6.38 | 4.78 | 10.72 | 17.10 | 75.7 | 92.3 | 85.3 |
| 1918 | 3.66 | 2.16 | 10.62 | 14.28 | 43.4 | 91.5 | 71.3 |
| 1919 | 1.95 | 0.95 | 8.86 | 10.81 | 23.1 | 76.3 | 53.9 |
| 1920 | 1.72 | 0.82 | 8.00 | 9.72 | 20.4 | 68.9 | 48.5 |
| 1920/21 | 2.08 | 1.08 | 7.42 | 9.50 | 24.7 | 63.9 | 47.4 |
| 1921/22 | 2.54 | 1.44 | 6.31 | 8.85 | 30.1 | 54.4 | 44.2 |
| 1922/23 | 3.33 | 2.13 | 8.54 | 11.87 | 39.5 | 73.6 | 59.2 |
| 1923/24 | 4.05 | 2.59 | 9.28 | 13.33 | 48.0 | 79.9 | 66.5 |
| 1924/25 | 5.65 | 3.96 | 9.75 | 15.40 | 67.0 | 84.0 | 76.8 |
| 1925/26 | 7.58 | 5.72 | 11.76 | 19.34 | 89.9 | 101.3 | 96.5 |
| 1926/27 | 8.76 | 6.72 | 12.37 | 21.13 | 103.9 | 106.5 | 105.4 |
| 1927/28 | 10.08 | 8.14 | 12.26 | 22.34 | 119.6 | 105.6 | 115.5 |
| 1928/29 ² | 11.77 | — | 12.48 | 24.25 | 139.7 | 107.5 | 121.0 |
| 1929/30 ³ | 14.55 | — | 11.40 | 25.95 | 172.6 | 98.3 | 129.5 |
| Plan | 14.55 | — | 11.40 | 25.95 | 172.6 | 98.3 | 129.5 |

¹ Taken from the Five-Year Plan of the Soviet Union. G. T. Grinko, International Publishers, New York, 1930, p. 34.

² Figures for 1928-1929 were added by the editor.

³ Figures for 1929/30 were taken from Control Figures 1929/30, Table 2, pp. 428-31.

PRE-WAR AND SOVIET RUSSIA

CHAPTER V. PRODUCTIVITY OF WORKER.

Closely allied to the problem of employment and unemployment is the question of the productivity of the worker. Data in any detail on the output of Russian workers before the war, did not prove to be available for this report. A small table is quoted, however, which gives an idea of the productivity of pre-war Russian workers.¹⁹ The average productivity of workers in war industries is shown in this table to have increased greatly during the war years. In all other industries it apparently decreased almost equally.

| | War Industries | | Market and War Industries | | Industries producing for regular market | |
|--|----------------|--------------------|---------------------------|--------------------|---|--------------------|
| | Absolute | Percentage of 1913 | Absolute | Percentage of 1913 | Absolute | Percentage of 1913 |
| Average workers per day. | | | | | | |
| 1913 | 180,589 | 100 | 408,983 | 100 | 143,347 | 100 |
| 1914 | 204,066 | 113 | 407,743 | 99.7 | 143,715 | 100.2 |
| 1915 | 247,445 | 137 | 338,154 | 97.3 | 137,189 | 95.7 |
| 1916 | 300,464 | 166 | 331,199 | 95.3 | 138,348 | 96.5 |
| 1917 | 327,967 | 182 | 397,794 | 97.2 | 147,366 | 102.8 |
| Value of annual production. Prices of 1913, in 1000 roubles. | | | | | | |
| 1913 | 537,308 | 100 | 877,971 | 100 | 217,195 | 100 |
| 1914 | 616,172 | 114.6 | 833,638 | 94.6 | 223,117 | 102.7 |
| 1915 | 1,154,232 | 214.8 | 824,747 | 93.9 | 209,448 | 96.5 |
| 1916 | 1,513,046 | 281.5 | 735,901 | 83.8 | 183,169 | 84.3 |
| 1917 | 1,544,196 | 287.2 | 490,716 | 55.8 | 138,314 | 63.3 |
| Value of annual production per worker in roubles. | | | | | | |
| 1913 | 2,975 | 100 | 2,147 | 100 | 1,515 | 100 |
| 1914 | 2,019 | 101.4 | 2,044 | 95.2 | 1,552 | 102.4 |
| 1915 | 4,664 | 160.1 | 2,070 | 96.4 | 1,527 | 100.7 |
| 1916 | 5,135 | 179.3 | 1,881 | 87.6 | 1,324 | 87.4 |
| 1917 | 4,709 | 158.2 | 1,234 | 57.4 | 939 | 61.9 |

The average output of Soviet workers for the principal branches of large scale industry between 1923/24 and 1929/30, the years most immediately relating to the question, is shown in the following series:

¹⁹ Taken from Zagorsky S. O., State Control of Industry in Russia during the War, pp. 67-68.

EMPLOYMENT AND UNEMPLOYMENT

1. The average yearly production worker in value of output, 1923/24—1929/30, in pre-war roubles (1913 value).

(See accompanying series Table XIX and Chart IV.)

The 1929/30 figures are planned figures only. Total average production is shown to increase between 1923/24 and 1928/29 by nearly 100 percent as measured in 1913 roubles; from 1624 roubles a year to 3089 roubles a year in 1913 producers' prices. In the various categories rates of increase, very naturally, vary.

If one may compare the figures from the two sources, the rate of decrease in productivity between 1913 and 1923/24 and the total increase between 1913 and 1928/29 is significant. By weighting the value of output per worker by the number of workers in each group, in 1913, an average annual output for all workers is obtainable, 2,231 roubles. By 1923/24 that value had dropped, therefore, to less than 73 percent of the 1913 level. Undoubtedly it had been lower. By 1928/29 it had risen to 138 percent of 1913.

The question of productivity in Soviet Russia is an important one. From the point of view of unemployment the rate of increase in productivity, rather than the amount of productivity at any given time, is probably the more crucial, since unemployment in a developing and shifting technology represents in part a lag in adjustment and utilization of the existing labor supply. The degree of success in Soviet Russia in handling her unemployment problem, therefore, under conditions of increasing productivity, as shown in these figures, is itself a comment on the effectiveness of the training and rehabilitation of the labor forces.

It must be remembered, none the less, that the productivity of the Russian worker has never at any time yet approached the level attained by American workmen. Poorer machinery and less developed techniques, less efficient organization of work and management, routing operations and materials for example, or studied and standardized proceedings and operations, have given less effective support to workers' energies. Lower standards of living, less nourishing and energizing food habits and, in pre-

PRE-WAR AND SOVIET RUSSIA

war Russia, longer hours of work, have probably given less energy with which to work. In the years immediately after the revolution, new methods of factory discipline and of factory management, as well as the disorganization and destruction of factories and machinery attendant upon the war and revolution, including the civil war and intervention, all of the factors indeed which complicated the industrial situation in the post-revolutionary years brought the level of workers' productivity to a very low point. New machinery, rationalization, reorganization of management and control, the five-day week, plus all the incentives to work, which have been employed, are bringing about at present a rapid increase in productivity levels. The saturation point, however, if such a point is possible or to be expected, is far from reached. The following table quoted from

| Lines of Industry | Pace of the growth of productivity of of labor | Most important factors in the growth of the productivity of labor |
|----------------------|--|--|
| Anthracite | + 20.5 % | <ul style="list-style-type: none"> 1. Increase of the mechanical process for obtaining raw material by 16 %. 2. Increase of delivery by mechanical means. 3. Number of organization improvements. |
| Machine construction | + 21.9 % | <ul style="list-style-type: none"> 1. Growth of supply to factories. 2. Specialization of production. 3. Introduction of new equipment and organization of a conveying system. 4. Improvement of the inter-corporative and corporative planning of work. |
| Textile | + 19.7 % | <ul style="list-style-type: none"> 1. Concentration of work. 2. Better utilization of machines. 3. Organization methods (output per person) |
| Basic chemical | + 28.5 % | <ul style="list-style-type: none"> 1. Utilization of new equipment. 2. Increase of supply. |
| Rubber | + 37.6 % | <ul style="list-style-type: none"> 1. Shortening of working day. 2. Change of assortments. 3. Introduction of new equipment. |
| Match | + 31.9 % | <ul style="list-style-type: none"> 1. Operating of new factories. |
| Electrotechnical | + 33.4 % | <ul style="list-style-type: none"> 1. Increase of supply. 2. Improving the quality of working staff. 3. Introduction of new equipment. |

EMPLOYMENT AND UNEMPLOYMENT

the Control Figures for 1929/30 gives the reasons assigned to various specific increases in 1928/29.²⁰

It is interesting to note that industrial production rose between 1913 and 1928/29 by 39 percent, large scale industrial employment by 17 percent, and that industrial productivity increased by 38 percent.

CHART IX
 (TABLE III)
 AVERAGE YEARLY PRODUCTION PER WORKER, PRE-WAR
 RUSSIA AND U.S.S.R.

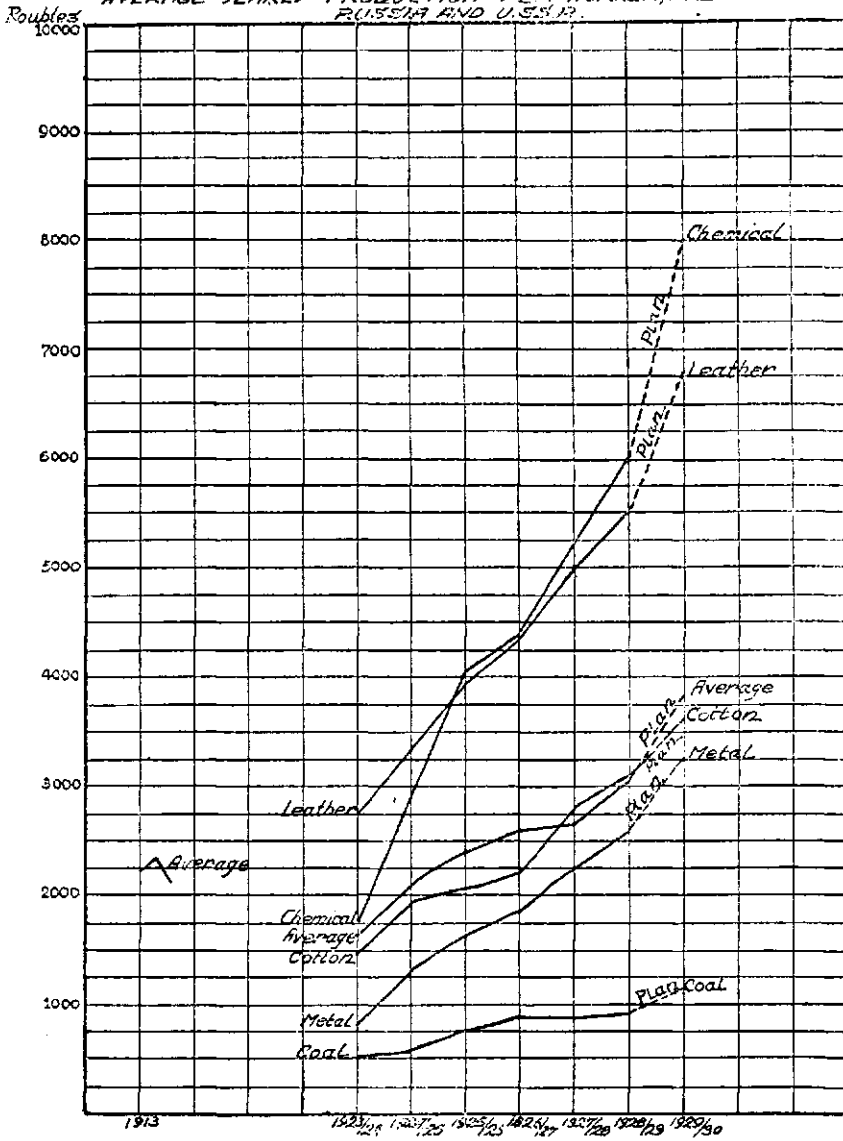


TABLE XIX. PRODUCTIVITY SERIES, 1.

| AVERAGE YEARLY PRODUCTION PER WORKER U. S. S. R. | | | | | | | |
|--|-----------------|----------------|----------------|----------------|--------------------------|----------------|----------------|
| In Roubles, Producers' Prices of 1931. ¹ | | | | | | | |
| Years 1923/24 to 1926/27 compiled from Control Figures 1926/27, pp.324-5; years 1927/28 to 1929/30 compiled from Control Figures 1929/30, p. 504. | | | | | | | |
| | Census Industry | | | | Planned National Economy | | |
| | 1923/24 | 1924/25 | 1925/26 | 1926/27 Plan | 1927/28 | 1928/29 | 1929/30 Plan |
| Coal | 518.3 | 556.0 | 747.9 | 864.0 | 842.3 | 911.8 | 1,127.0 |
| Oil — unrefined ² | 7,563.0 | 8,655.5 | 9,625.6 | 10,277.2 | 5,886.9 | 7,650.4 | 9,578.3 |
| Peat | | | | | 643.6 | 647.3 | 789.4 |
| Mining | | | | | 971.9 | 988.5 | 1,294.5 |
| Mining of Ore | | | | | 867.7 | 861.5 | 1,076.7 |
| Metal | 789.6 | 1,339.8 | 1,608.1 | 1,842.7 | 2,220.9 | 2,600.6 | 3,297.7 |
| Electrical Mfg. | | | | | 3,235.9 | 4,112.5 | 5,486.9 |
| Building Materials | | | | | 1,186.2 | 1,396.7 | 1,831.4 |
| Cement | | | | | 1,832.4 | 2,123.9 | 2,718.3 |
| Glass | 417.9 | 643.7 | 646.4 | 768.9 | 928.9 | 1,055.4 | 1,325.2 |
| Lumber-Woodworking ² | 1,760.2 | 2,107.3 | 3,113.4 | 2,902.7 | 2,540.4 | 2,861.4 | 3,609.9 |
| Chemical A ³ | 1,693.2 | 2,830.0 | 4,018.5 | 4,387.7 | 5,186.7 | 6,034.8 | 8,033.2 |
| Chemical B | | | | | 4,493.2 | 4,841.2 | 6,525.9 |
| Rubber ² | 4,193.9 | 6,493.3 | 6,266.3 | 6,570.8 | 3,917.0 | 4,332.4 | 6,043.5 |
| Matches | 639.3 | 702.9 | 731.7 | 784.8 | | | |
| Textile | | | | | 2,681.5 | 3,035.2 | 3,637.9 |
| Cotton | 1,435.3 | 1,924.2 | 2,016.6 | 2,179.3 | 2,753.6 | 3,078.3 | 3,665.4 |
| Wool | 1,912.5 | 2,711.9 | 3,019.9 | 3,464.0 | 4,241.7 | 5,000.0 | 5,851.6 |
| Linen | | | | | 1,274.3 | 1,458.5 | 1,818.4 |
| Machine sewn Goods | | | | | 3,725.1 | 4,940.3 | 6,387.4 |
| Leather and Shoe | 2,742.4 | 3,387.2 | 3,974.0 | 4,365.9 | 5,001.5 | 5,515.0 | 6,783.7 |
| China and Porcelaine | | | | | 1,019.7 | 1,186.7 | 1,460.5 |
| Paper | | | | | 2,761.9 | 3,355.8 | 4,004.1 |
| Polygraphic | | | | | 1,426.8 | 1,650.4 | 1,904.5 |
| Alimentary | | | | | 5,456.4 | 5,928.9 | 7,019.1 |
| Salt | 900.0 | 1,389.8 | 1,485.7 | 1,563.4 | 1,929.4 | 2,163.9 | 2,748.9 |
| Others | 2,018.7 | 2,771.9 | 3,143.6 | 3,207.0 | 3,914.7 | 4,044.7 | 4,518.1 |
| AVERAGE for all | 1,624.1 | 2,144.3 | 2,393.6 | 2,575.4 | 2,691.9 | 3,089.7 | 3,862.0 |

¹ Figures for 1923/24 to 1926/27 are given by Control Figures in Producers' Prices of 1913. Figures for 1927/28 to 1929/30 are given by Control Figures in Producers' Prices of 1926/27 and here have been adjusted to 1913 prices by application of index of Producers' Prices for 1926/27.

² Decrease and low figure unexplained.

³ Includes a. Basic Chemical; b. Aniline; c. Laquer; d. Chemical-Pharmaceutic; e. Wood chemical.

PRE-WAR AND SOVIET RUSSIA

CHAPTER VI. WAGES.

The relation between employment, productivity and wages has become increasingly apparent in all countries with the experience of the present depression. Especially where standards of living are comparatively level among large groups of the population and where production, particularly industrial production, expects to find the largest part of its market in the supplying of goods to the workers themselves, the relation between the workers' consumptive power and their power to produce has been the subject of much discussion. Greatly developed productivity in recent years, occurring through technological changes, rationalization and scientific management, particularly in the field of mass production, has been recognized by an ever growing number of persons as requiring new and higher wage levels, if the necessary new markets are to be reached and maintained.

Moreover, in Soviet Russia the development of wages and standards of living marks the crucial point in the growth of her new economy. The primary purpose of socialism, both in theory and practice, has been to increase the standards of life among the working masses of the people. Soviet policy has been explicit in this regard.

The rise or fall of wage levels and standards of living for the masses, therefore, by her own standards, must be the first and fundamental test of Soviet economy. But that test must be applied not simply to specific moments or periods, but to the long time trend. Both because of the newly awakened interest in wage and productivity levels and their influence upon employment, and because also of the importance of wage trends in Soviet Economy, the record of wages paid in pre-war and Soviet Russia is peculiarly significant.

Data concerning wages are submitted in two series:²¹

1. Average monthly wages of workers in Census Industry, principal categories, 1913, 1923/24—1928/29:

a) in nominal wage

²¹ Series (1) and (2) are taken from tables in the Control Figures 1926/27 and 1929/30

EMPLOYMENT AND UNEMPLOYMENT

b) in real wage based on the cost of living in 1913.²²

2. Average yearly wages of all employed persons, principal categories, 1922/23—1929/30, estimated realized figures for the year 1929/30 covering one quarter only:

a) in nominal wage

b) in real wage based on the cost of living in 1913.²²

(See accompanying series Tables XX-XXIV and Chart V.)

The cost of living indexes for the year 1921 to 1930 reported by the International Labour Review based on 1914 are included for comparative purposes. (Table XXIV.)

The first wage series (1a and 1b) show the drop between 1913 and 1923/24 which the figures on production and productivity would lead one to expect. Data given in the International Labor Review show that the drop in the post-revolutionary and civil war years was even greater, in comparison to 1913, than that of 1923/24, already within the reconstruction period. The fall of the average real wage from 25 roubles a month in 1913 to 16 roubles a month in 1923/24, an even greater drop, to less than seven roubles a month in 1920, is eloquent testimony, again, to the difficulties of the civil war period.²³

A further study of the figures shows, however, the continued rise in wage levels between 1923/24 and 1929/30. By the year 1928/29 the average nominal wage had reached 73 roubles a month, the real wage 35 roubles a month. The increase in real wages had been from 4 percent to 20 percent a year, and 108 percent for the period.

The average real wage in 1928/29 was 40 percent above the 1913 level. A study of the various categories reveals also different rates of increase among different branches of industry. Real wages for oil workers in 1928/29 were 33 percent above the 1913 level, for metal workers 36 percent, for textile workers 69 percent and for food workers 154 percent. Coal alone shows a decrease. On the whole the wages which were highest in

²² See Appendix for a discussion of the cost of living index used for calculating real wages.

²³ Volume 10, No. 5, p. 804, volume 13, No. 5, pp. 684-715.

PRE-WAR AND SOVIET RUSSIA

1913, those of metal workers, wood workers, polygraphic and leather workers, were highest still in 1929/30. Those which were lowest in 1913, in textiles and matches, were lowest, also, in 1929/30. But the percent of increase in the lower paid industries is greater than in the better paid, showing a levelling tendency in wages paid, although skilled and important work earns higher wages throughout than less skilled or less important. Two great exceptions appear in coal and the food industries. The real wages of coal miners, according to these figures, were actually lower in 1928/29 than in 1913. Highest paid workers in this case became among the lowest paid. In the food industries the opposite has occurred. (Tables XXI.)

A comparison between the increase in real wages and the increase in productivity shows an almost equivalent increase in the average rates. Workers producing 38 percent more goods a year in 1928/29 than in 1913 were receiving 40 percent more wages a month. That comparison alone is worth study by all economists. (Tables XIX and XXI.)

Any discussion of wages in Soviet Russia must bear in mind the fact that the money wages paid for work done is not the complete record of the workers' available income. A large number of services are rendered by the state which, in effect, increase the wage by a considerable percentage.

Various kinds of insurance, low rents from municipal houses, educational stipends and the like, are reckoned as increasing the actual wage from ten to twenty five percent. Thus a recent discussion of wage levels, which described the average monthly wage of industrial workers for the year 1928/29 as 125 percent above the pre-war rate in "a purely monetary expression", considered it as 136.5 percent above the pre-war rate, if one included the increase in cultural and social services rendered.²⁴

But a discussion of certain of these services will be considered under standards of living.

²⁴ G. V. Tsybul'sky, in "Wages during the period from 1927-1929" (translation), *Voprosy Truda*, May 1930, No. 5, pp. 8-18.

Roubles

CHART V
(TABLE III)
AVERAGE MONTHLY REAL WAGES IN LARGE SCALE
INDUSTRY, PRE-WAR RUSSIA AND U.S.S.R.

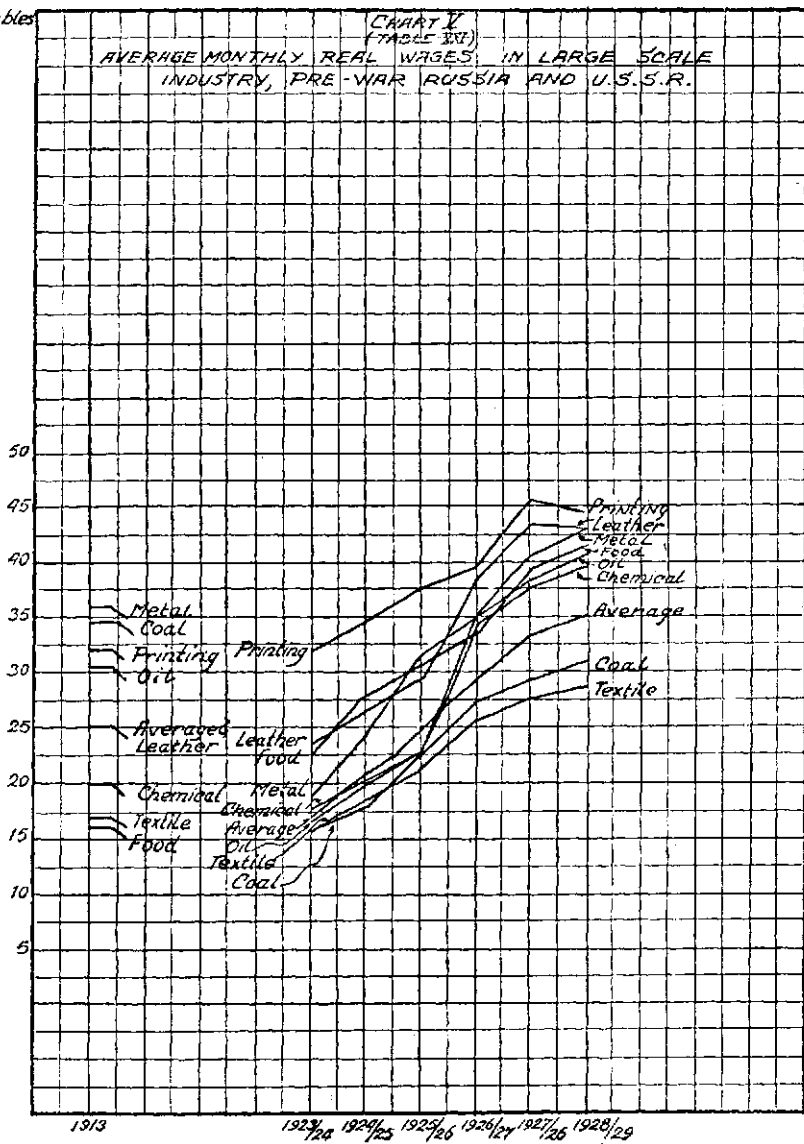


TABLE XX. WAGES SERIES 1a.

| AVERAGE MONTHLY WAGES IN LARGE SCALE INDUSTRY. | | | | | | | |
|---|-------------------|---------------|---------------|-----------------------|---------------|---------------|---------------|
| Pre-war Russia and U. S. S. R. In Currency of Corresponding Year. | | | | | | | |
| Years 1913 and 1923/24 to 1925/26 compiled from Control Figures 1926/27 pp. 90-91; years 1927/28 and 1928/29 compiled from Voprosy Truda, May 1930, p. 8. Control Figures 1925/26, pp. 90-91. Voprosy Truda, No. 5 1930, p. 8. | | | | | | | |
| | 1913 | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 Plan | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 |
| Mining | 33.0 | 32.8 | 36.8 | 45.1 ¹ | | | |
| Coal | 34.4 | 32.5 | 36.1 | 43.1 | 56.0 | 59.5 | 65.1 |
| Naphtha | 30.5 | 33.9 | 40.8 | 45.1 | 70.8 | 77.8 | 85.4 |
| Metal | 35.4 | 39.4 | 48.7 | 57.7 | 70.9 | 80.6 | 89.9 |
| Textile | 17.0 | 32.1 | 36.4 | 40.8 | 51.4 | 55.9 | 60.4 |
| Cotton | 17.3 | 33.0 | 37.4 | 41.8 | 52.9 | 57.0 | 61.7 |
| Chemical | 20.0 | 35.9 | 41.1 | 43.1 | 69.0 | 77.0 | 83.0 |
| Match | 14.3 ² | 25.5 | 28.8 | 31.8 | | | |
| Rubber | 30.0 | 55.2 | 68.0 | 71.0 | | | |
| Alimentary-Food | 16.0 | 46.9 | 55.1 | 58.1 | 68.9 | 79.3 | 86.7 |
| Wood-working | 22.0 | 45.6 | 44.1 | 47.1 | 56.4 | 62.9 | 69.5 |
| Paper | 18.0 | 36.6 | 39.9 | 42.9 | 55.2 | 61.8 | 71.4 |
| Polygraphic-Printing | 32.0 | 66.7 | 69.2 | 72.2 | 79.9 | 90.3 | 94.2 |
| Leather | 25.0 | 48.3 | 54.0 | 57.0 | 78.2 | 86.5 | 89.6 |
| Machine-sewing | | 41.0 | 54.0 | 57.0 | | | |
| AVERAGE in Nominal | | | | | | | |
| Roubles | 25.0 | 35.2 | 41.5 | 48.0 ³ | 60.4 | 66.9 | 73.4 |

¹ In Mining are included ore workers, which increases the average wage in mining.
² Estimated.
³ Includes allowance of 3 roubles for rent.

TABLE XXI. WAGES SERIES 1b.

| AVERAGE MONTHLY REAL WAGES IN LARGE SCALE INDUSTRY. | | | | | | | | |
|---|------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------------|
| Pre-war Russia and U. S. S. R. | | | | | | | | |
| In Roubles | | | | | | | | |
| Years 1913 and 1923 to 1925/26 compiled from Control Figures 1926/27, pp. 90-91; years 1927/28 and 1928/29 compiled from Voprosy Truda, May 1930, p. 8. | | | | | | | | |
| | 1913 | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | % 1928/29 to 1913 |
| Mining | 33.0 | 15.7 | 18.4 | 23.5 | | | | |
| Coal | 34.4 | 15.5 | 18.0 | 22.4 | 27.7 | 29.8 | 31.0 | 90.3 |
| Naphtha | 30.5 | 16.2 | 20.4 | 23.5 | 35.0 | 38.9 | 40.7 | 133.4 |
| Metal | 35.4 | 18.8 | 24.3 | 31.1 | 35.0 | 40.3 | 42.9 | 136.0 |
| Textile | 17.0 | 15.3 | 18.2 | 21.3 | 25.4 | 28.0 | 28.8 | 169.2 |
| Cotton | 17.3 | 15.8 | 18.7 | 21.8 | 26.1 | 28.5 | 29.4 | 170.0 |
| Chemical | 20.0 | 17.1 | 20.5 | 22.4 | 34.1 | 38.5 | 39.6 | 198.0 |
| Match | 14.3 | 12.2 | 14.4 | 16.6 | | | | |
| Rubber | 30.0 | 26.3 | 33.9 | 37.0 | | | | |
| Alimentary-Food | 16.0 | 22.4 | 27.5 | 30.3 | 34.0 | 39.7 | 41.3 | 254.1 |
| Wood Working | 22.0 | 21.8 | 22.0 | 24.5 | 27.9 | 31.5 | 33.1 | 150.5 |
| Paper | 18.0 | 17.5 | 19.9 | 22.3 | 27.3 | 30.9 | 34.0 | 189.0 |
| Polygraphic Printing | 32.0 | 31.8 | 34.5 | 37.6 | 39.5 | 45.2 | 44.9 | 140.3 |
| Leather | 25.0 | 23.1 | 26.9 | 29.7 | 38.6 | 43.3 | 42.7 | 171.0 |
| Machine Sewing | | 19.6 | 26.9 | 29.7 | | | | |
| AVERAGE | 25.0 | 16.8 | 20.7 | 25.0 | 29.8 | 33.4 | 35.0 | 140.0 |
| Cost of Living Index applied, 1913 = 100 | | 209.5 | 200.4 | 192.0 | 202.5 | 199.9 | 209.7 | |

TABLE XXII. WAGES SERIES 2a.

| AVERAGE YEARLY NOMINAL WAGES OF EMPLOYED PERSONS FOR PRINCIPAL CATEGORIES, U. S. S. R. | | | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------|---------------------------------------|
| In Roubles. | | | | | | | | | |
| Years 1922/23 to 1924/25 compiled from Control Figures 1926/27, pp. 376-7; years 1925/26 to 1929/30 compiled from Control Figures 1929/30, pp. 487-9. Year 1930 compiled from The Economic System of the U. S. S. R. and Control Figures 1931, pp. 268-9. | | | | | | | | | |
| | 1922/ 1923 | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | 1929/ 1930 plan | 1930 |
| Industry | 249 | 455 | 564 | 575 | 750 | 821 | 892 | 972 | 1011 |
| Census | 253 | 462 | 571 | 701 | 778 | 847 | 925 | 1008 | 1032 |
| Non-Census | 232 | 423 | 525 | 505 | 561 | 628 | 628 | 669 | 795 |
| Construction | 232 | 423 | 525 | 825 | 911 | 943 | 1012 | 1063 | 1082 |
| Communication | 247 | 390 | 496 | 614 | 712 | 759 | 830 | 886 | 799 |
| Transportation | 161 | 376 | 522 | | | | | | |
| Railroad | 155 | 379 | 520 | 692 | 770 | 821 | 881 | 944 | 1002 |
| Water | 162 | 344 | 514 | 707 | 799 | 893 | 964 | 1027 | 1151 |
| Local | 207 | 377 | 535 | 741 | 782 | 828 | 903 | 966 | 1034 |
| Commerce and Credit | 284 | 653 | 714 | 614 | 749 | 762 | 795 | 803 | 884 ¹ 1085 ² |
| Rural Workers | | | | | | | | | |
| Agriculture and Forestry | 107 | 203 | 223 | 256 | 274 | 306 | 336 | 362 | 495 |
| Average of TOTAL | 180 | 355 | 468 | 571 | 624 | 681 | 738 | 797 | 879 |

¹ Commerce. ² Credit

Data compiled by U. S. S. R. for the calendar year 1930 to compare with the new fiscal year beginning January 1, 1931.

TABLE XXIII. WAGES SERIES 2b.

| AVERAGE YEARLY REAL WAGES OF EMPLOYED PERSONS FOR PRINCIPAL CATEGORIES U. S. S. R. | | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------|--|
| In Roubles. | | | | | | | | |
| Years 1923/24 to 1924/25 compiled from Control Figures 1926/27, pp. 376-7; years 1925/26 to 1929/30 compiled from Control Figures 1929/30, pp. 487-9. Fourth quarter 1929/30, compiled from Planned Economy, p. 343. | | | | | | | | |
| | 1923/ 1924 | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | 1929/ 1930 Plan | 1929/1930 LV Quarter |
| Industry | 217.7 | 281.4 | 299.5 | 370.4 | 410.7 | 425.2 | 475.3 | 126.2 |
| Census | 220.5 | 284.9 | 365.1 | 384.2 | 423.7 | 441.1 | 492.9 | 129.1 |
| Non-census | 201.9 | 262.0 | 263.0 | 277.0 | 314.2 | 299.5 | 327.1 | -97.8 |
| Construction | 201.9 | 262.0 | 429.7 | 449.9 | 471.7 | 482.6 | 519.8 | 137.4 |
| Communication | 186.2 | 247.5 | 319.8 | 351.6 | 379.7 | 395.8 | 433.3 | 121.3 |
| Transportation | 179.5 | 260.5 | — | — | — | — | — | — |
| Railroad | 180.9 | 259.5 | 360.4 | 380.2 | 410.7 | 420.1 | 461.6 | 124.2 |
| Water | 164.2 | 257.0 | 363.0 | 394.6 | 446.7 | 459.7 | 502.2 | 151.6 |
| Local | 180.0 | 267.0 | 385.9 | 386.2 | 414.7 | 430.6 | 472.4 | 132.5 |
| Commerce and credit | 311.7 | 356.3 | 319.5 | 369.9 | 381.2 | 379.1 | 392.6 | 109.5 (commerce) 135.0 (credit) |
| Rural workers | | | | | | | | |
| Agriculture & Forestry | 96.9 | 111.3 | 133.3 | 135.3 | 153.1 | 160.2 | 177.0 | — |
| TOTAL Average | 169.5 | 233.5 | 297.4 | 308.1 | 340.7 | 351.9 | 389.7 | 119.3 |
| Cost of Living Index applied 1913=100 | 109.5 | 200.4 | 192.0 | 202.5 | 199.9 | 209.7 | 204.5 | 204.5 |
| The real wage for the year 1930 could not be estimated because no cost of living index was available. | | | | | | | | |

TABLE XXIV. PRICE INDEXES, U. S. S. R.

| Compiled from the International Labour Review, Statistics on Prices, published monthly, January 1924. | | | | | | |
|---|----------------------------------|----------------------------------|--|----------------------------------|--------------------------------|----------------------------------|
| | 1924 | | 1925 | | 1926 | |
| | Wholesale Price Index 1913=100 | Cost of Living Index 1923=100 | Wholesale Price Index 1913=100 | Cost of Living Index 1913/14=100 | Wholesale Price Index 1913=100 | Cost of Living Index 1913/14=100 |
| January | 181 | 209 | 178 | | 190 | 220 |
| February | 171 | 206 | — | | 194 | 225 |
| March | 161 | 209 | — | 226 | — | 229 |
| April | 157 | 213 | 197 | 226 | 197 | 239 |
| May | 165 | 206 | 191 | 223 | 190 | 233 |
| June | 169 | 207 | 188 | 219 | 183 | 227 |
| July | 175 | 212 | 175 | 221 | 182 | 228 |
| August | 173 | — | 173 | 217 | 180 | 222 |
| September | 164 | 220 | 173 | 227 | 179 | 220 |
| October | 164 | — | 174 | | | 224 |
| November | 168 | 220 | 175 | | | 225 |
| December | 172 | 223 | 183 | | | 223 |
| | 1927 | | 1928 | | 1929 | |
| | Food Price Index 1913=100 | Cost of Living Index 1913/14=100 | Food Price Index 1917=100 | Cost of Living Index 1913/14=100 | Food Price Index 1913=100 | Cost of Living Index 1913/14=100 |
| January | | 210 | 208 | 205 | 212 | 210 |
| February | 208 | 209 | 206 | 203 | 217 | 214 |
| March | 199 | 202 | 205 | 203 | 222 | 218 |
| April | 201 | 203 | 210 | 206 | 236 | 228 |
| May | 198 | 199 | 211 | 206 | 241 | 230 |
| June | 200 | 199 | 218 | 206 | 240 | 229 |
| July | 201 | 199 | 218 | 210 | | 232 |
| August | 199 | 198 | 212 | 207 | | 231 |
| September | 200 | 199 | 208 | 201 | | 236 |
| October | 203 | 202 | 213 | 204 | | — |
| November | 208 | 205 | 219 | 209 | | 218 |
| December | 209 | 205 | 220 | 209 | | 219 |
| | 1930 | | Index Number Prices Russia and U. S. S. R. 1917—1924 | | | |
| | Cost of Living Index 1913/14=100 | | 1930=1 | | | |
| January | 221 | 1917 | | | 2.94 | |
| February | 224 | 1918 | | | 20.8 | |
| March | 221 | 1919 | | | 164 | |
| April | 222 | 1920 | | | 2,420 | |
| May | 225 | 1921 | | | 16,800 | |
| June | 227 | 1922 | | | 288,000 | |
| | | 1923 | | | 21,240,000 | |
| | | 1924 | | | 4,457,000,000 | |

PRE-WAR AND SOVIET RUSSIA

CHAPTER VII. STANDARDS OF LIVING.

No subject is more difficult to measure conclusively than standards of living, either in comparison between one country and another, or within one country between different periods. Moreover, in Soviet Russia standards of living are an important subject. In pre-war Russia they were admittedly low. In Soviet Russia throughout the years of revolution and civil war they were, by all indications, still lower. In the years of reconstruction and at present considerable evidence can be gathered to show that they are steadily improving. Shortages of food and industrial goods bring forth continual charges to the contrary, especially within the last two years. The period of agricultural upheaval through collectivization of the peasant farms and the period of the Five-Year Plan have certainly been difficult.

Continuous series of data on any subject within the field of standards of living are difficult to find, other than the data on production itself and wages already given. Two groups of figures touching both pre-war and Soviet Russia are available, however, which, in conjunction with the production figures, are suggestive. These are:

1. The Marketable Portion of agricultural production, exclusive of peasant turnover, 1913, 1923/24—1929/30, given in producers' prices of 1913.
2. Imports and Exports.
 - a) Total Exports from and Imports into Russia and the Soviet Union 1913-1930, exclusive of the years 1915-1920, at prices of each year.
 - b) Total Exports and Imports, 1910-1923, at prices of each year.
 - c) Major Exports from pre-war Russia and the U. S. S. R., 1913, 1928/29 and 1929/30, at prices of each year.
 - d) Russian and Soviet Imports, by commodity groups, 1913, 1928/29 and 1929/30, at prices of each year.
 - e) Exports and Imports, by commodity groups 1910—1917. (See accompanying series, Tables XXV-XXX and Chart VI.)

EMPLOYMENT AND UNEMPLOYMENT

The data on the marketable portion of agricultural production, that is, the part which entered into trade, both domestic and foreign, (as seen in Standard of Living Series 1), show both the drop in the civil war years and early years of reconstruction and the rise in recent years. The increase, especially in the foodstuffs, had not yet in 1928/29 reached the 1913 level. Particularly is that true for the group of grains which for 1928/29 were only worth 360 million pre-war roubles as against 935 million roubles in 1913. Meats, dairy products and eggs, also, were somewhat less, though fowl was more. At first glance it would look as though the quantity of foodstuffs available for home consumption were lower than in 1913, although most of the items were greater than in 1923/24.

A study of the imports and exports, however, through the years, shows that, although the trends have been the same as in all of pre-war Russian and Soviet Economy, the total figures had in no way in 1929/30 reached pre-war levels. If one were to figure the prices on a fixed basis throughout, one would find the volume of foreign trade in 1928/29 only about one half that of 1913 taking into account the difference in area of pre-war and Soviet Russia. (Series 2a, Standards of Living.)

From the point of view of standards of living these figures are significant, because taken in relation to increased production they indicate, necessarily, a rather larger proportional domestic consumption in 1929/30 than ever before. Moreover, a lesser part of the foodstuffs, especially grain, has been exported throughout the period of Soviet Economy than in 1913, and, although the import of foodstuffs also has been less, the part played by food imports has never, except during the war years, compared in size or importance with that of food exports. For example, the marketable portion of grains in 1913 reached 935 million roubles. The export was worth 594 million roubles, leaving approximately 341 million for home consumption. In 1928/29, the last year for which data were available regarding marketable portion of agriculture, grain valued at 360 million roubles (pre-war prices) was marketed, but exports of grain for 1928/29 reached, in pre-war prices, only about 10 million roubles, leaving the supply of grain available for home con-

PRE-WAR AND SOVIET RUSSIA

sumption somewhat above the 1913 level. (Tables XXV and XXVIII.)

In the field of industrial production more striking conclusions might be reached by a study of increased domestic consumption of shoes, glass and building materials. Textiles cannot be included in the group, since the production of textiles, less exports, was in 1929/30 about comparable to that of 1913. On the whole, however, the nature of the goods shortage in Soviet Russia today would seem to be in relation to demand through increased wages and growing standards of life, rather than to habitual consumption at any time; and that would seem to be true in spite of the drain upon the country's resources through the agricultural upheaval and the five-year plan, both of which have lost more in consumers' goods than had been planned upon, the one through the destruction of herds, the other in export of goods necessary to maintain needed imports. Certain classes of consumers unquestionably have felt great restrictions in relation to earlier years, but not the masses of the people during recent years, if the statistics given have been read correctly. Certain commodities, on the other hand, have unquestionably been restricted, and all are short of the demand.

Additional suggestive data are included in two tables (XXXI and XXXII) giving the growth of all forms of social insurance in the years between 1925/26 and 1929/30. Earlier data covering the subject were not available to the writers. It may be categorically stated, however, that no such number of persons had the advantage of these various forms of insurance or received comparable benefits in earlier years, even though certain paternalistic attitudes may have remained from serfdom.

Two tables (XXXIII and XXXIV), also, are included which give information on housing construction and housing area for the years from 1924/25 to 1929/30. Comparable figures for this also were not obtainable for earlier years. Socialized, i.e. government and cooperative housing construction, is seen to increase from 121 million roubles in 1924/25 to 430 million roubles in 1928/29 and 673 million roubles to have been planned for 1929/30.²⁵ The area occupied per person, however, increases

²⁵ Prices of each year.

EMPLOYMENT AND UNEMPLOYMENT

very little. Figures for the year 1926 as compared with the years 1927/28 to 1929/30 also amounted to very nearly the same, as the following statement shows: ²⁶

| THE UTILIZATION OF HOUSING POLICY, 1926. | | | | | | |
|--|--|---|--|--|------------------|-------------------|
| | Housing area in thousand square meters | Number of persons living on indicated area | Average housing area per 1 person in sq. mets. | From 100 square meters oc- cupied by corresponding social group the space belonged to: | | |
| | | | | Govern- ment | cooper- publ. | private sector |
| Total in U. S. S. R. | 141,414.9 | 24,143,322 | 5.86 | 42.2 | 0.8 | 57.0 |
| Workmen | 39,166.9 | 7,974,573 | 4.91 | 44.9 | 1.2 | 53.9 |
| Employees | 48,313.0 | 6,940,936 | 6.96 | 59.8 | 1.0 | 39.2 |
| Owners | 36,551.4 | 6,693,624 | 5.46 | 15.3 | 0.1 | 84.6 |
| Other groups | 17,883.6 | 2,534,189 | 6.86 | 44.3 | 0.4 | 55.3 |

²⁶ Yusfin, L. "The Utilization of Housing Policy", Voprosy Truda, May 1930, No. 5, p. 20.

PRE-WAR AND SOVIET RUSSIA

In connection with any housing discussion of pre-war and Soviet Russia, one should make some sort of comparison of rentals. Actual figures are not at hand, but the following comparisons of workers family budgets may be interesting in this connection.

| WORKERS FAMILY BUDGET. | | | | |
|--------------------------|-------------------|--------------|---------------------------------|-------------------------------|
| In percent to whole. | | | | |
| | 1908 Petrograd | 1908 Baku | 1918-May-November ²⁷ | |
| | | | Petrograd | Moscow |
| Food | 48.7 | 45.2 | 71.3 | 72.5 |
| Rent and household | 20.7 | 22.1 | 3.8 | 6.7 |
| Clothing | 12.1 | 13.7 | 6.6 | 8.3 |
| Heath | 3.3 | 3.3 | 3.4 | 3.2 |
| Cultural needs | 4.7 | 3.8 | 3.1 | 1.9 |
| Trip to village of birth | 2.2 | 3.3 | ? | 0.6 |
| Other expenses | 8.3 | 8.1 | 11.8 | 6.8 |
| | 1925 average | | 1926 average | 1927 ²⁸ average |
| Food | 43.83 | | 46.89 | 48.23 |
| Clothing | 22.52 | | 19.64 | 22.57 |
| Rent | 5.58 | | 6.84 | 8.20 |
| Fuel and light | 6.71 | | 7.06 | 7.05 |
| Furniture | 2.82 | | 2.75 | 2.97 |
| Hygiene and medicine | .86 | | .95 | 1.04 |
| Drink and tobacco | 3.45 | | 4.00 | 4.95 |
| Educational supplies | 3.87 | | 4.85 | 4.72 |
| Other | 8.36 | | 9.02 | 6.47 |

²⁷ Compiled from *Economitsheskaya Zhizn*, No. 123, June 8, 1919.

²⁸ From the *Statistical Review*, 1927, No. 5, 1928, No. 5, quoted by Turine, S.P., in "Workers' Family Budget Inquiries in Soviet Russia". *International Labour Review*, volume 20, No. 4, October 1929, p. 572.

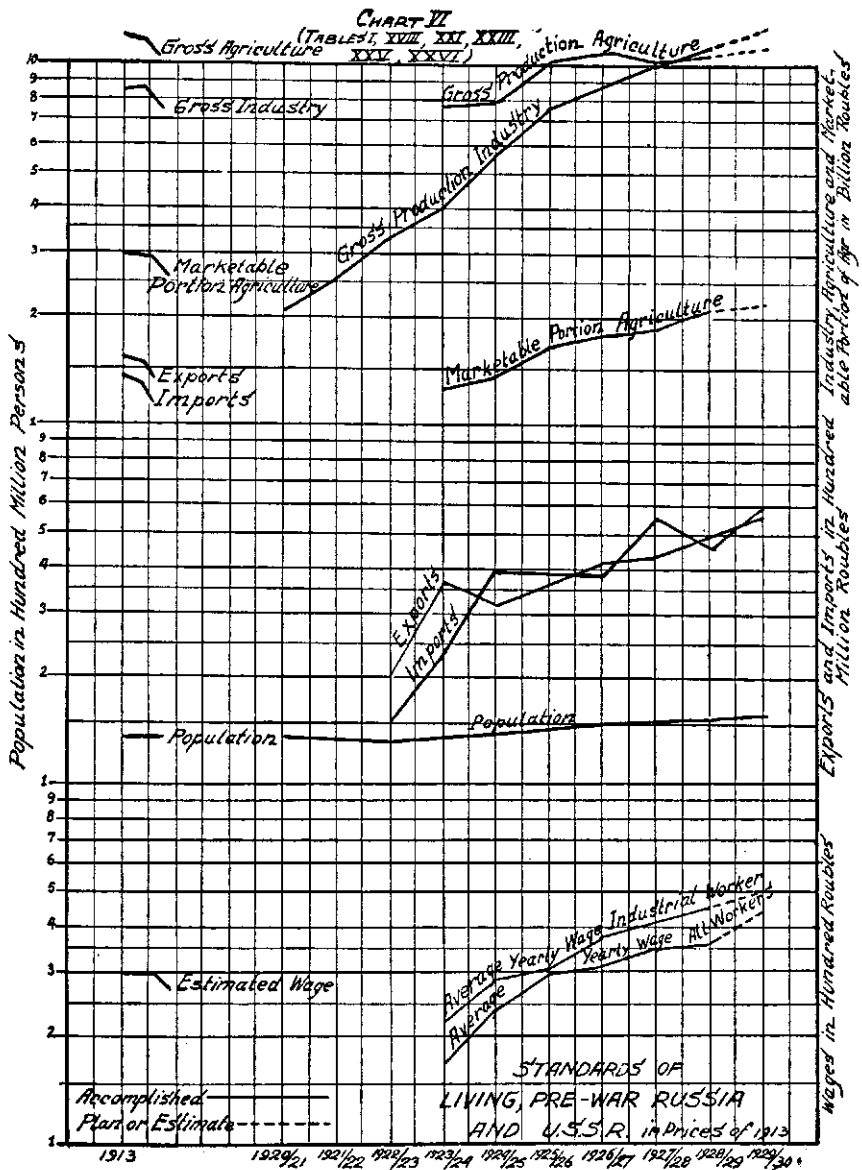


TABLE XXV. STANDARDS OF LIVING SERIES 1.

| PRODUCTION OF AGRICULTURE, MARKETABLE PORTION, NON-VILLAGE MARKETS, PRE-WAR RUSSIA AND U. S. S. R. | | | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|---|
| In Million Roubles, Producers' Prices, Prices of 1913 ¹ | | | | | | | | | |
| Year 1913, Control Figures 1925/26, pp. 72-3; years 1923/24 and 1924/25 compiled from Control Figures 1926/27, pp. 342-3; years 1925/26 to 1929/30 compiled from Control Figures 1929/30, pp. 540-41. | | | | | | | | | |
| | 1913 | 1923/ 24 | 1924/ 25 | 1925/ 26 | 1926/ 27 | 1927/ 28 | 1928/ 29 | 1929/ 30 Plan | Index of 1926/ 27 used for ad- justment to 1913 prices |
| Grains | 935.9 | 413.1 | 281.6 | 394.2 | 435.1 | 362.1 | 360.3 | 423.2 | 124.6 |
| Potatoes | 68.0 | 39.5 | 31.1 | 38.5 | 43.1 | 43.4 | 57.7 | 66.4 | 170.8 |
| Hay and Sown Grass | 62.0 | 52.0 | 57.4 | 46.2 | 46.3 | 48.6 | 49.9 | 52.2 | 175.7 |
| Other Plant Culture | | | | 119.3 | 135.2 | 122.6 | 150.2 | 167.8 | 149.3 |
| Vegetable and Fruit | 272.3 | 85.6 | 99.5 | | | | | | |
| Ears, Pulp and Straw | 21.9 | 9.7 | 10.7 | | | | | | |
| Fibre Plants (Cotton, Flax, Hemp) | 283.7 | 64.5 | 136.7 | 188.1 | 172.2 | 206.3 | 243.8 | 294.7 | 134.6 |
| Oil-Seeds | 115.0 | 52.7 | 85.4 | 122.9 | 93.6 | 112.6 | 116.6 | 120.4 | 108.8 |
| Other Technical Cultures | 139.6 | | | | | | | | |
| Sugar Beets | | 27.7 | 31.7 | 72.6 | 52.7 | 84.2 | 80.8 | 69.4 | 134.6 |
| Tobacco | | 13.3 | 15.1 | 26.2 | 22.1 | 25.3 | 19.0 | 22.4 | 134.6 |
| Mahorka | | 3.0 | 3.3 | 14.3 | 15.8 | 12.7 | 9.7 | 9.7 | 134.6 |
| Meat | 424.3 | 186.5 | 258.3 | 258.6 | 282.6 | 309.8 | 380.8 | 305.9 | 175.7 |
| Dairy Products and Milk | 262.9 | 129.7 | 162.1 | 175.0 | 175.8 | 214.1 | 209.3 | 231.3 | 175.7 |
| Fowl | 45.6 | 2.4 | 16.8 | 48.7 | 41.2 | 45.4 | 49.5 | 53.7 | 175.7 |
| Eggs | 82.8 | 26.1 | 38.5 | 47.9 | 58.0 | 68.2 | 62.4 | 77.4 | 175.7 |
| Raw Leather and other Raw Products | 287.1 | 80.5 | 106.9 | 99.5 | 112.8 | 131.5 | 167.1 | 157.9 | 193.2 |
| Others | 19.5 | 23.1 | 27.5 | 29.1 | 29.3 | 32.5 | 35.4 | 37.2 | 149.3 |
| TOTALS² | 2958.6 | 1209.4 | 1364.6 | 1689.8 | 1741.4 | 1871.1 | 2050.6 | 2131.9 | 149.3 |

¹ Figures for 1913 to 1924/25 are given by Control Figures in Producers' Prices of 1913. Figures for 1925/26 to 1929/30 are given by Control Figures in Producers' Prices of 1926/27 and have here been adjusted for each product to 1913 prices by application of the index of Producers' Prices for 1926/27. (See Index Numbers given in the last column).

² Discrepancy in totals due to application of index numbers.

TABLE XXVI. STANDARDS OF LIVING SERIES 2a.

| EXPORTS FROM AND IMPORTS INTO RUSSIA AND THE SOVIET UNION 1913—1930. ¹ | | |
|---|------------------------------|------------------------------|
| Taken from Budish, J. M., and Shipman S. S., <i>Soviet Foreign Trade</i> , New York, 1931, p. 135. | | |
| (at Current Prices of each Year.) | | |
| Year | Exports (1000 roubles) | Imports (1000 roubles) |
| 1913 | 1,520,135 | 1,374,034 |
| 1920 | 1,397 | 28,469 |
| 1921 | 20,195 | 208,325 |
| 1922 | 81,621 | 269,777 |
| 1923 | 205,818 | 144,056 |
| 1923/24 | 369,187 | 233,532 |
| 1924/25 | 575,258 | 723,501 |
| 1925/26 | 676,620 | 756,332 |
| 1926/27 | 770,543 | 712,692 |
| 1927/28 | 777,849 | 945,531 |
| 1928/29 | 877,596 | 836,303 |
| 1929/30 | 1,002,270 | 1,068,742 |

¹Up to 1916 the trade figures relate to the entire Russian Empire (excluding Finland). For the years 1917-23, apart from the change in boundaries, the statistics include trade only across the European frontier. Statistics for the last seven years are for fiscal years ending September 30 and cover the trade of the U. S. S. R. over all frontiers. The figures are for imports for consumption and domestic export and the totals exclude bullion and specie. The values for the years 1921 to 1924 were calculated by applying pre-war prices to the quantities and are consequently lower than the real values. Thereafter, they are based on current values on a gold basis. Imports are valued c. i. f. and exports f. o. b. port or frontier. The following sources were used for figures in this table: Commerce Yearbook, 1929, vol. II, p. 566; Statistical Handbook of the U. S. S. R. for 1923 (in Russian), Moscow, Central Statistical Bureau, 1929, p. 713; Soviet Union Year-Book, 1930, p. 296; Trade Information Service, American-Russian Chamber of Commerce, Bulletins 50a to 53a January 1931.

TABLE XXVII. STANDARDS OF LIVING SERIES 2b.

| EXPORTS AND IMPORTS PRE-WAR AND SOVIET RUSSIA 1910-1923. | | |
|--|---------|---------|
| In million roubles. | | |
| Years | Exports | Imports |
| 1910 | 1449.4 | 1084.4 |
| 1911 | 1591.4 | 1161.7 |
| 1912 | 1518.8 | 1171.8 |
| 1913 | 1520.1 | 1374.0 |
| 1914 | 956.1 | 1098.0 |
| 1915 | 401.8 | 1138.6 |
| 1916 | 476.0 | 1717.0 |
| 1917 | 464.0 | 1966.0 |
| 1918 | 75.0 | 261.0 |
| 1919 | — | 82.6 |
| 1920 | — | — |
| 1921 | 20.2 | 232.4 |
| 1922 | 81.6 | 454.3 |
| 1923 | 205.8 | 129.1 |

From 1918 values are given in cherwonetz.
 In import figures for 1922 and 1923 food import for famine relief is enclosed as 184,000,000 cherwonetz for 1922 and 35,000,000 cherwonetz for 1923.
 The Statistical Handbook for 1928 gives for 1920 the following figures: 1913 roubles Import 28469; Export 1397.

TABLE XXVIII. STANDARDS OF LIVING SERIES 2c.

| MAJOR EXPORTS FROM PRE-WAR RUSSIA AND THE U. S. S. R. ¹ | | | | | | | |
|--|----------------------|------------------|----------------------|------------------|----------------------|------------------|-----------------|
| Values at Current Prices. | | | | | | | |
| Taken from Budish, J. M., and Shipman, S. S., Soviet Foreign Trade, New York 1931, p. 139. | | | | | | | |
| Products | 1913 | | 1928/29 | | 1929/30 | | |
| | in thous. roubles | in % of total | in thous. roubles | in % of total | in thous. roubles | in % of total | in % of 1913 |
| AGRICULTURAL | | | | | | | |
| Grain | 594,501 | 39.1 | 18,878 | 2.2 | 125,007 | 12.5 | 21.0 |
| Oil Cake | 38,687 | 2.5 | 20,300 | 2.3 | 21,585 | 2.2 | 55.8 |
| Oil Seeds | 35,016 | 2.3 | 3,884 | 0.4 | 3,025 | 0.3 | 8.7 |
| Butter | 71,558 | 4.7 | 33,713 | 3.8 | 10,809 | 1.07 | 15.1 |
| Eggs | 90,646 | 6.0 | 27,763 | 3.2 | 10,996 | 1.09 | 12.1 |
| Dressed Poultry | 7,048 | 0.5 | 11,718 | 1.3 | 18,607 | 1.85 | 264.0 |
| Fish and Fish Products | 8,236 | 0.5 | 14,211 | 1.6 | 15,981 | 1.59 | 194.0 |
| Meat Products | 9,632 | 0.6 | 18,652 | 2.1 | 6,790 | 0.7 | 70.4 |
| Flax and Tow | 94,189 | 6.2 | 28,989 | 3.3 | 34,436 | 3.5 | 36.6 |
| Hemp and Tow | 22,870 | 1.5 | 3,834 | 0.4 | 4,925 | 0.5 | 21.5 |
| Bristles | 8,871 | 0.6 | 6,595 | 0.8 | 6,508 | 0.6 | 73.4 |
| Casings | 2,713 | 0.2 | 15,123 | 1.7 | 11,506 | 1.1 | 424.1 |
| Furs | 17,052 | 1.1 | 109,119 | 12.4 | 83,069 | 8.3 | 487.2 |
| INDUSTRIAL | | | | | | | |
| Lumber and Timber | | | | | | | |
| Products | 164,932 | 10.8 | 137,154 | 15.6 | 180,195 | 18.0 | 109.3 |
| Oil Products | 50,086 | 3.3 | 132,614 | 15.1 | 157,323 | 15.7 | 314.1 |
| Manganese Ore | 14,575 | 1.0 | 19,059 | 2.2 | 15,199 | 1.5 | 104.3 |
| Iron Ore | 3,047 | 0.2 | 5,617 | 0.6 | 4,444 | 0.4 | 145.8 |
| Asbestos | 1,725 | 0.1 | 4,587 | 0.5 | 4,520 | 0.5 | 262.0 |
| Coal and Coke | 805 | 0.1 | 9,953 | 1.1 | 16,985 | 1.7 | 2109.9 |
| Cotton Cloth | 43,895 | 2.9 | 47,589 | 5.4 | 48,320 | 4.8 | 110.8 |
| GRAND TOTAL including other agricultural and industrial products | 1,520,135 | 100.0 | 877,596 | 100.0 | 1,002,270 | 100.0 | 65.9 |

¹ Figure for 1913 taken from Encyclopedia of Soviet Exports (in Russian) vol. I. pp. 494-7; figures for individual commodities exported in 1928/29 from Saul G. Bron, Soviet Economic Development and American Business, New York, Horace Liveright, 1930, p. 130; for 1929/30 from Economic Review of the Soviet Union, February 1, 1931.

² A revised estimate gives 217.3 million roubles.

TABLE XXIX. STANDARDS OF LIVING SERIES 2d.

RUSSIAN AND SOVIET IMPORTS BY COMMODITY GROUPS ¹
1913, 1928-1929 and 1929-30.

In current Prices.

Taken from Budish, J. M., and Shipman, S. S., Soviet Foreign Trade.
New York, 1931, pp. 142-3.

| Commodity | 1913 | | 1928/29 | | 1929/30 | | Ratio 1929/30 to 1913 (percent) |
|--|-----------------|-------------------|-----------------|---------------|---------------------|---------------|--|
| | 1000 roubles | % of total | 1000 roubles | % of total | 1000 roubles | % of total | |
| PRODUCERS' GOODS | | | | | | | |
| TOTAL | 884,428 | 64.4 ³ | 719,905 | 86.7 | — | — | — |
| a) Industrial, transport and electrical equipment | 172,358 | 12.5 | 206,217 | 24.6 | 379,079 | 35.4 | 220.3 |
| b) Raw materials | 343,111 | 25.0 | 345,015 | 41.6 | — | — | — |
| Cotton | 114,041 | 8.3 | 131,796 | 15.9 | 64,668 | 6.1 | 56.7 |
| Wool | 60,012 | 4.4 | 69,309 | 8.4 | 47,904 | 4.5 | 79.5 |
| Iron and steel | 56,378 | 4.1 | 29,364 | 3.5 | 61,618 | 5.8 | 109.2 |
| Non-ferrous metals | — | — | 46,670 | 5.6 | 67,103 | 6.3 | — |
| Hides and skins | 25,083 | 1.8 | 30,947 | 3.7 | 19,627 | 1.8 | 78.2 |
| Crude rubber | — | — | 9,587 | 1.2 | 13,473 | 1.3 | — |
| Miscellaneous | 87,597 | 6.4 | 27,342 | 3.3 | — | — | — |
| c) Semi-manufactures | 212,405 | 15.5 | 97,682 | 11.7 | — | — | — |
| Leather | 21,204 | 1.5 | 8,533 | 1.0 | 6,634 | 0.6 | 31.2 |
| Paper & cardboard | 29,534 | 2.1 | 10,990 | 1.3 | 10,096 | 0.9 | 34.2 |
| Paints and dyes | 14,970 | 1.1 | 5,739 | 0.7 | 6,462 | 0.6 | 43.2 |
| Tanning materials | 7,719 | 0.6 | 8,243 | 1.0 | 7,619 | 0.7 | 98.7 |
| Miscellaneous | 138,942 | 10.2 | 64,177 | 7.7 | — | — | — |
| d) Coal | 91,224 | 6.6 | 463 | 0.1 | 664 | 0.06 | 0.7 |
| e) Agricultural machinery & supplies | 65,330 | 4.8 | 66,454 | 8.0 | — | — | — |
| Agricultural implements, tractors and parts | 49,036 | 3.6 | 47,502 | 5.7 | 121,545 | 11.4 | 248.0 |
| CONSUMERS GOODS | | | | | | | |
| TOTAL | 391,991 | 28.5 ³ | 107,071 | 12.9 | — | — | — |
| a) Food Products | 261,269 | 19.0 | 78,939 | 9.5 | — | — | — |
| Rice | 13,083 | 0.9 | 13,139 | 1.6 | 11,858 | 1.1 | 90.6 |
| Tea | 62,169 | 4.5 | 29,399 | 3.5 | 23,390 | 2.2 | 37.6 |
| Herring | 24,387 | 1.8 | 2,514 | 0.3 | 7,655 | 0.7 | 31.3 |
| Oranges & Lemons | 11,093 | 0.8 | 4,461 | 0.5 | 1,391 | 0.13 | 12.5 |
| Sugar | 33 | 0.0 | 3,886 | 0.5 | 29,904 ⁴ | 2.8 | 90,618.2 |
| b) Industrial Consumers' Goods | 130,722 | 9.5 | 28,132 | 3.4 | — | — | — |
| TOTAL IMPORTS, including non-classified | 1,374,034 | 100.0 | 836,303 | 100.0 | 1,068,742 | 100.0 | 77.8 |

¹ Compiled from the Great Soviet Encyclopaedia (in Russian), Moscow, 1930, and from Trade Information Service, American-Russian Chamber of Commerce, Bull. No. 51a, Jan. 1931; figures for 1929/30 preliminary and totals for main groups not yet available.

² Included in "Miscellaneous".

³ These percentages do not include the non-classified imports.

⁴ The unusually large sugar imports in 1929/30 were due to the poor crop of sugar beets in 1929.

TABLE XXX. STANDARDS OF LIVING SERIES 2e.

| EXPORT AND IMPORT, PRE-WAR AND SOVIET RUSSIA in Principal Groups 1910-1917. ¹ | | | | | | | | | | |
|---|------------|------|---------------------------------|------|-----------------|-----|--------------------|------|--------|-------|
| In Million Roubles | | | | | | | | | | |
| EXPORTS | | | | | | | | | | |
| Year | Foodstuffs | | Raw and semi-manufactured goods | | Animal products | | Manufactured goods | | Total | |
| | Absol. | % | Absol. | % | Absol. | % | Absol. | % | Absol. | % |
| 1910 | 933.7 | 64.4 | 436.9 | 30.1 | 24.0 | 1.7 | 54.5 | 3.8 | 1427.7 | 100.0 |
| 1911 | 1017.6 | 63.9 | 482.0 | 30.3 | 26.4 | 1.7 | 65.4 | 4.1 | 1591.4 | 100.0 |
| 1912 | 821.5 | 54.1 | 589.0 | 38.8 | 31.0 | 2.0 | 77.3 | 5.1 | 1518.8 | 100.0 |
| 1913 | 839.9 | 55.3 | 561.0 | 36.9 | 34.3 | 2.3 | 84.9 | 5.5 | 1520.1 | 100.0 |
| 1914 | 523.4 | 54.8 | 349.1 | 36.5 | 14.5 | 1.5 | 69.1 | 7.2 | 956.1 | 100.0 |
| 1915 | 201.7 | 50.2 | 144.7 | 36.0 | 0.2 | 0.1 | 55.2 | 13.7 | 401.8 | 100.0 |
| 1916 | 155.5 | 32.6 | 293.1 | 61.5 | 0.2 | 0.1 | 27.6 | 5.8 | 476.4 | 100.0 |
| 1917 | 51.5 | 11.1 | 383.8 | 82.7 | 0.0 | 0.0 | 28.7 | 6.2 | 464.0 | 100.0 |
| IMPORTS : | | | | | | | | | | |
| 1910 | 191.4 | 17.7 | 554.4 | 51.1 | 10.8 | 1.0 | 327.8 | 30.2 | 1084.4 | 100.0 |
| 1911 | 206.9 | 17.8 | 553.2 | 47.6 | 11.0 | 1.0 | 390.6 | 33.6 | 1161.7 | 100.0 |
| 1912 | 209.6 | 17.9 | 555.6 | 47.4 | 12.0 | 1.0 | 394.6 | 33.7 | 1171.8 | 100.0 |
| 1913 | 237.9 | 17.3 | 668.0 | 48.6 | 17.6 | 1.3 | 450.5 | 32.8 | 1374.0 | 100.0 |
| 1914 | 198.2 | 18.1 | 520.8 | 47.4 | 13.5 | 1.2 | 365.5 | 33.3 | 1098.0 | 100.0 |
| 1915 | 179.2 | 15.7 | 499.7 | 43.9 | 15.2 | 1.3 | 444.5 | 39.1 | 1138.6 | 100.0 |
| 1916 | 127.5 | 9.2 | 581.8 | 41.6 | 0.6 | 0.0 | 688.6 | 49.2 | 1716.5 | 100.0 |
| 1917 | 116.2 | 8.5 | 510.7 | 37.2 | 0.2 | 0.0 | 745.7 | 54.3 | 1965.8 | 100.0 |

¹ The years 1915 and 1917 are only given for merchandise imported and exported through the European frontier including the Black Sea border of the Caucasus as well as the trade with Finland.

² The total imports for these years include in the above four groups commodities satisfying State needs, in value of r. 318,000,000 in 1916 and r. 592,961,000 in 1917. The % are taken as relating to a grand total of 1,398,000,000 in 1916 and 1,372,800,000 in 1917, merchandise for State needs not included.

TABLE XXXI.

| SOCIAL INSURANCE U. S. S. R. | | | | | |
|---|---------|---------|---------|----------|-----------------|
| Years 1925/26 to 1929/30. | | | | | |
| Currency, where given, for corresponding year. Control Figures 1929/30, p. 491. | | | | | |
| | 1925/26 | 1926/27 | 1927/28 | 1928/29 | 1929/30 Plan |
| 1. Total number of insured in thousands | 8,185.0 | 9,038.0 | 9,673.8 | 10,468.5 | 11,528.4 |
| 2. Average monthly wage of insured in roubles | 54.77 | 59.55 | 63.99 | 69.29 | 74.76 |
| 3. Average Insurance tariff (% of total wage fund) | 13.40 | 13.10 | 12.73 | 12.54 | 12.37 |
| 4. Number of days of temporary incapacity for work per 100 insured | 1,069.7 | 967.6 | 987.6 | 1,012.5 | 970.0 |
| 5. Average yearly number of pension units in thousands | 583.7 | 700.6 | 848.1 | 1,006.4 | 1,112.9 |
| 6. Average yearly number of unemployed receiving assistance in thousands | 343.6 | 473.0 | 657.9 | 853.7 | 541.6 |
| 7. Average monthly subvention for unemployed in roubles | 11.95 | 12.82 | 14.13 | 14.84 | 15.01 |
| 8. Average yearly number of pension units for old age in thousands | — | — | 1.0 | 5.9 | 21.0 |
| 9. Average size of yearly pension for old age in roubles | — | — | — | — | 521.3 |
| 10. Average sum deducted per one insured for the medical assistance fund in roubles | 23.53 | 25.97 | 24.87 | 24.75 | 27.10 |
| <p>Remark: The figures for 1925-26-1927,28 are calculated from statistics; for 1928-29 according to preliminary execution of the budget; for 1929/30 according to the project worked out by the preliminary commission of the Commissariat.</p> | | | | | |

TABLE XXXII.

| SOCIAL INSURANCE BUDGET. EXPENSES. U. S. S. R. | | | | | |
|--|--------------|--------------|--------------|----------------|-----------------|
| Years 1925/26 to 1929/30 In Million Roubles. | | | | | |
| In Currency of Corresponding Years. Control Figures 1929/30, p. 492. | | | | | |
| | 1925/26 | 1926/27 | 1927/28 | 1928/29 | 1929/30 Plan |
| 1. Subventions for temporary incapacity to work | 196.8 | 216.4 | 244.0 | 296.6 | 320.2 |
| 2. Subventions to the insured and their families, as a supplementary form of assistance | 83.7 | 81.3 | 68.4 | 62.3 | 60.0 |
| 3. Provisions to invalids and families having lost their wage-earner | 110.3 | 157.3 | 205.1 | 261.5 | 310.6 |
| 4. Expenses for old age insurance | — | — | — | 3.8 | 11.0 |
| 5. Provisions to unemployed | 47.8 | 69.4 | 113.5 | 142.3 | 100.6 |
| 6. Organization expenses | 27.6 | 26.7 | 23.6 | 23.3 | 24.0 |
| 7. Rest homes and Sanatoriums | 31.8 | 44.6 | 40.4 | 36.5 | 45.3 |
| 8. Allotments to medical assistance for the insured | 192.6 | 234.7 | 246.3 | 259.5 | 312.6 |
| 9. Deductions into the fund of the workmen's housing construction | 25.3 | 34.2 | 34.9 | 39.4 | 44.8 |
| 10. Other expenses | 6.4 | 5.8 | 7.7 | 5.9 | 10.4 |
| 11. Reserve | — | 0.6 | — | 30.3 | 75.0 |
| TOTAL | 722.3 | 871.0 | 983.9 | 1,161.4 | 1,314.3 |
| <p>Remarks: 1. The figures for 1925/26 - 1927/28 are according to statistics, for 1928/29 - according to the preliminary carrying out of the budget, for 1929/30 - according to the project of the Preparatory Commission of the Commissariat.</p> <p>2. The expenses for old age insurance in 1927/28 are included in the item: "Provisions for Invalids and Families having lost their Wage Earners". The item: "Real Homes and Sanatoriums" includes not only the current expenses for upkeep, but also expenses for capital instruction, repair and equipment.</p> | | | | | |

TABLE XXXIII.

| HOUSING CONSTRUCTION U. S. S. R. | | | | | | |
|--|--------------------------|---------------|---------------|---------------|----------------------------|---------------|
| Years 1927/28 to 1929/30 | | | | | | |
| Control Figures 1929/30, p. 518. | | | | | | |
| | Units | 1927/ 1928 | 1928/ 1929 | 1929/ 1930 | In % to pre- vious year | |
| | | | | | 1928/ 1929 | 1929/ 1930 |
| I. NEW CONSTRUCTION | million square meters | | | | | |
| socialized sector | | 2.9 | 3.3 | 6.0 | 113.8 | 181.8 |
| private sector | | 2.5 | 2.7 | 3.0 | 108.0 | 111.1 |
| total | | 5.4 | 6.0 | 9.0 | 111.1 | 150.0 |
| II. HOUSING SUPPLY AT END OF YEAR | | | | | | |
| socialized sector | | 75.8 | 78.3 | 83.5 | 103.3 | 106.6 |
| private sector | | 84.4 | 86.2 | 88.2 | 102.1 | 102.3 |
| total | | 160.2 | 164.5 | 171.7 | 102.7 | 104.4 |
| III. AVERAGE QUOTA OF AREA PER ONE PERSON | square meters | | | | | |
| socialized sector | | 5.88 | 5.80 | 5.92 | 98.6 | 102.1 |
| private sector | | 5.55 | 5.53 | 5.48 | 99.6 | 99.1 |
| average | | 5.70 | 5.65 | 5.70 | 99.1 | 100.9 |
| IV. COST OF CONSTRUCTION PER 1 SQUARE METER | roubles | | | | | |
| socialized sector | | 141.0 | 131.0 | 113.0 | 92.9 | 86.3 |
| private sector | | 48.0 | 48.0 | 48.0 | 100.0 | 100.0 |
| V. INVESTMENTS IN NEW CONSTRUCTION | | | | | | |
| million in prices of corres- ponding year | roubles | | | | | |
| socialized sector | | 407.2 | 430.4 | 673.0 | 105.7 | 156.4 |
| private sector | | 120.0 | 132.0 | 145.0 | 110.0 | 109.8 |
| total | | 527.2 | 562.4 | 818.0 | 106.7 | 145.4 |

TABLE XXXIV.

| CONSTRUCTION OF WORKMEN'S HOUSING- METHODS OF FINANCING, U. S. S. R. | | | |
|---|---------------|---------------|-----------------------|
| Years 1924/25 to 1926/27 In Million Roubles (Currency of Corresponding years). Control Figures 1926/27, p. 361. | | | |
| | 1924/ 1925 | 1925/ 1926 | 1926/ 1927 Plan |
| 1. Budget U. S. S. R. | | | |
| a. Central Cooperative Bank | 35.0 | 80.0 | 80.0 |
| b. Incoming amounts for paying of advances | | 2.0 | 6.0 |
| c. Industry | 10.5 | 18.0 | 35.0 |
| d. Transportation | 4.6 | 9.2 | 10.0 |
| 2. Local Budget | | | |
| a. Executive Committees | 25.3 | 25.9 | 34.0 |
| 3. Social Insurance | | | |
| a. Advances | | 30.0 | |
| 4. Fund for bettering workmen's conditions | | | |
| a. Industry | 16.9 | 36.0 | 38.4 |
| b. Government stores, Syndicates, Stock Companies | 0.9 | 2.0 | 5.0 |
| c. Banks | | | 10.0 |
| 5. Governments Insurance | | | |
| a. Deducted from profits | 0.5 | 2.0 | 2.3 |
| 6. Own means | | | |
| a. Industry | 14.8 | 11.0 | 26.6 |
| b. Cooperatives | 13.0 | 6.5 | 7.5 |
| | TOTAL | 121.5 | 216.6 |
| | | 258.8 | |

PRE-WAR AND SOVIET RUSSIA

CHAPTER VIII. CONCLUSION.

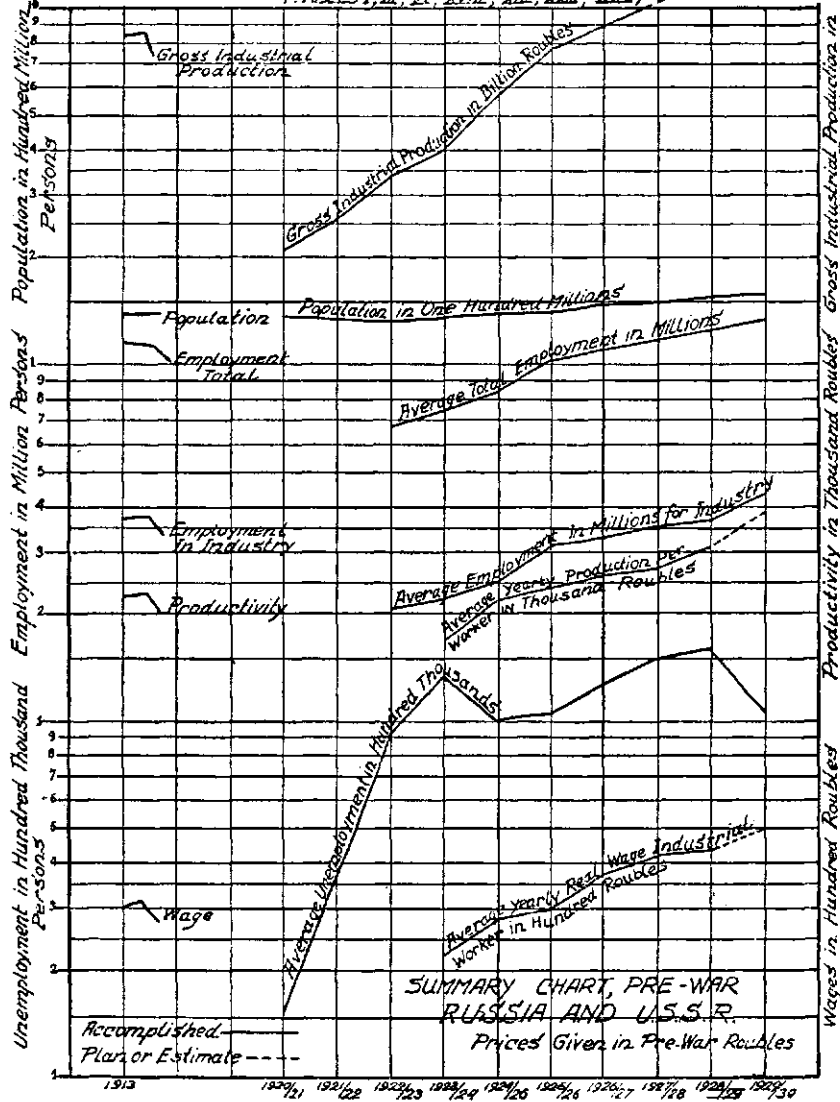
The accompanying chart reveals the relationship between the various economic data we have been discussing and the general trends which are apparent throughout. The cataclysmic drop between 1913 and 1923/24 followed by the steady and increasingly rapid rise between 1923/24 and 1929/30 is apparent in production, employment, productivity and wages, both nominal and real. Unemployment coming from so low a figure that it might be counted as negligible in 1921 is seen to be at its height in 1928/29 and in 1930 again sinking into comparative insignificance.

Two points are particularly important for this discussion: first the trends of Russian Economy from pre-war to Soviet, during the seventeen years covered by the data, and second, the apparent trend during the years of 1929 and 1930. Soviet Russia has not only outstripped the pre-war records of Tsarist Russia and within the last three years in industrial production nearly doubled them, but in the last years of world depression has come through apparently with comparatively small loss, continuing, indeed, to new and greater gains.

It was stated at the beginning of the report that in addition to the fact of growth itself, the rate of growth, stability of growth and cost to the population, in hours of work and standards of living were economically the basic questions to be considered. The growth itself can no longer be ignored; the rate of growth is in the history even of industrializing nations extraordinary. The stability seems best illustrated by the depression year. Standards of living are debatable, always, but in the present instance can hardly be considered as other than improved. The average real wage of the industrial worker certainly has been increased and that with the hours of work reduced.

The result of the experience of Soviet Russia with a transition to socialist economy would seem to be primarily twofold; the levelling of distribution and a new control over economic forces. It is not argued that the effects of the world depression, for example, have not been felt there. Most certainly they have been: but not in the crippling of the production processes, nor in unemployment; wages, also, have been maintained and in-

CHART VII
(TABLES I, II, XI, XVII, XIX, XXII, XXV)



SUMMARY CHART, PRE-WAR
RUSSIA AND U.S.S.R.
Prices Given in Pre-War Roubles

PRE-WAR AND SOVIET RUSSIA

creased. The effect of the depression has been felt primarily in the lowered prices for raw materials exported to pay for the needed imports. The plan for production has been on the whole maintained. The necessity for a larger than planned exportable surplus, therefore, and a consequent - in part at least - restriction in the domestic supply of goods has been the price paid. The whole population has borne the burden and in comparatively equal shares.

Finally, the relation between production, employment, productivity and wages is worth attention. Production rises with extraordinary rapidity. Employment, productivity and wages all increase at comparable rates, although wage outstripped productivity up to 1925/26, and employment outstripped both till the same time. Thereafter the increase of all three proceeds at nearly the same rate with productivity gaining slightly. On the whole the wage increase has been slightly in advance of the others. The rate of increase in production, of course, is accounted for by the increases in productivity of the worker and in employment.

It has not been the purpose of this report to present a complete picture of the economic development of Soviet Russia as it has come from Tzarist Russia through the revolution and civil war. The picture which does appear, however, even in incomplete data, is one of extraordinary interest and power. A nation has been reborn, but not only that; a new economic system is shown to be developing rapidly at the present time. The record during the last two years of world depression, through which Soviet Russia has passed apparently without diminution in her program of development, brings the program in itself to world attention.

APPENDIX. SOURCES OF DATA.

The data used in the report come from the following sources:

PRIMARY SOURCES. STATISTICAL REPORTS.

1. Control figures, Kontrolnie Tsifri, published by the Central Statistical Administration of the Gosplan (Government Planning Bureau) Moscow, for the years 1925/26, 1926/27, 1927/28, 1928/29, 1929/30.
2. Statistical Yearbook, Statisticheski Ezhegodnik, published by the Central Statistical Administration, R. S. F. S. R. 1921, vol. I. 1918-20; vol. II. 1924, vol. I.
3. Statistical Handbook, Statisticheski Sbornik, 1913-17, published by the Central Statistical Administration, R. S. F. S. R., Moscow 1922.
4. World Economy, Statistical Handbook, Mirovoie Khozaistvo, Statisticheski Sbornik, za 1913-1925. Edited by Prof. N. D. Kondratieff, Publications Department of the People's Commissariat of Finances of the U. S. S. R., Moscow 1926.
5. World Economy, 1913-1921. Statisticheski Ezhegodnik. Edited by Professor S. A. Falkner. In collaboration with V. G. Groman and M. F. Kaufman, all Russian Central Union of Consumers Associations, Moscow 1922.
6. Statistical Handbook U. S. S. R. 1928. Moscow 1929.
7. The Economic System of the U. S. S. R. at the beginning of the Third-Year of the Five-Year Plan and the Control Figures for 1931, Narodnoe Khoziaistvo S. S. S. R. i Kontrolnie Tsifri na 1931. Moscow 1931.

PERIODICALS:

1. Planned Economy, Planovoe Khozyaistvo, nos. 6, 10-11, 12. June, October-November, December 1930.
2. Monthly Statistical Bulletin. Ezhemesyachnii Statisticheskii Bulletin, Organ of the Supreme Council of National Economy, No. 85, June 1930.

APPENDIX

3. *Voprosi Truda*, monthly organ of the Commissariat of Labor, No. 5, May 1930.

SECONDARY SOURCES:

Grinko, G. T. *The Five Year Plan of the Soviet Union*. International Publishers New York, 1930.

Budish, J. M. and Shipman, Samuel S. *Soviet Foreign Trade*. Horace Liveright Inc., New York, 1931.

Economic Handbook of the Soviet Union. American Russian Chamber of Commerce. New York, 1931.

Miller, Marguerite, *The Economic Development of Russia 1905-1914*. P. S. King & Sons, London 1926.

Voytinsky, W. L. *Die Welt in Zahlen*, Verlag Mosse, Berlin 1926.

Zagorsky, S. O. *La République des Soviet, Bilan Economique*, Paris 1921.

Zagorsky, S. O. *State Control of Industry in Russia during the War*. Carnegie Endowment for International Peace, New Haven, 1928.

Köhler, dr. Siegfried. *Die Russische Industriearbeiterschaft von 1905-1917*. Osteuropa Institut, Breslau. Berlin & Leipzig, 1921.

Soviet Union Trade Delegation, *Encyclopedia of Russian Exports*. Berlin 1925. Second Edition, Berlin 1930.

It is surprising that as many Russian statistical sources are obtainable in the United States in the original Russian publications as proves to be available. In view of the disorganization which necessarily occurred between 1917 and 1921 it is remarkable, that as much can be found covering those years as proves to be the case. For recent years very much material is available if one is able to use it.

Certain problems arise in dealing with statistical data from Soviet Russia. Both the entire reorganization of statistical bureaus and the rapid development of the new economy has

APPENDIX

meant frequent changes of categories in all data especially those covering industrial activity. Necessarily therefore, one must compile in order to procure a series of any length. That, in itself, is cause for inaccuracy. Moreover, it is not easy to discover the regroupings which occur, even though careful notation is very often made in the tables. Finally the difficulty of handling the Russian language and translation is apparent.

THE DATA.

A statement is necessary regarding the Control Figures, since conflicting opinions are apparently current in this country as to their contents. The name "Control Figures" relates to the planned data which appear each year for the following year and constitute the final data presented. The Control Figures 1929/30, therefore contain planned data for the year 1929/30. All other preceding data are statistical in nature, representing actual facts. They are presented as control figures because they constitute the basis for the plan. The data for the year just completed are subject to later revision, since they are in some cases estimates of accomplishment. The Control Figures may be the basis for statistical report therefore, provided one uses the material for previous years in compiling the series.

Revision at the same time means that data as given one year tend not to agree exactly with those given earlier in previous Control Figures. The trends remain always the same. Some deviation, however, usually occurs, a circumstance which confuses the statistician and renders him suspicious of the whole. The tables as prepared by the authors and here presented have attempted to give comparable data from year to year. As a rule the latest figures published have been used for each series. These data for 1929/30 which are not indicated as "plan" came from preliminary estimates of accomplishment reported in Planned Economy in October-November 1930. as indicated.

Confusion arises in making any series from data on Census Industry in the Control Figures of 1925/26 to 1927/28 and from data on Planned National Economy 1928/29 and 1929/30. The

APPENDIX

name Planned National Economy refers to government industry only. The series given are therefore conservative for recent years.

Data for the years 1913 to 1923/24 were compiled from various sources as indicated. They were based primarily upon the Statistical Year Book and Statistical Handbook. Where secondary sources were used they were checked either with the originals or with one another. The secondary sources are not on the whole satisfactory for statistical use, since they tend to be fragmentary and vague in the listing of sources used.

EXCERPTS FROM "PLAN FOR STATE STATISTICS OF THE U. S. S. R." 1927-28 BY THE CENTRAL STATISTICAL ADMINISTRATION AND DEPARTMENT (C. S. A.).

The combined plan of the C. S. A. was prepared by the statistical planning commission created by the Council of Labor and Defence of the U. S. S. R. in 1927 in order to correlate the statistical work done by various government departments.

The Commission was entrusted with the preparation of a plan of statistical work for the entire Soviet Union covering the principal statistical undertakings of all union as well as republican character irrespective of the type of organization engaged in the work. The Commission was also to take up the programs and the methods used in gathering statistical materials by the central commissariats as well as by industrial and other enterprises. The Commission was to supervise the work done by the statistical organizations of the various republics and provinces of the U. S. S. R. - as well as of the statistical work in studying the dynamics and the conjuncture of the national economy.

The Commission, on entering upon its work issued a general thesis on the principles of statistical planning. This thesis stated in part:

1. "The responsible work put on the Statistical Planning Commission included working out an All Union plan for statistical work which is based on the idea of unity of the entire state statistics of the U. S. S. R. (Chief Statistical Administration, Departments and Economic Organizations)."

"Up to the present time, much of the statistical data referred only to particular parts of the country while no such statistics existed for other parts of the U. S. S. R., particularly Trans-Caucasia, Central Asia, Kazakastan, etc. The Commission stresses the importance of improving statistical work in the far-off sections of the country."

"The Commission, in stressing the importance of improving agricultural statistics, pointed out that up to 1927 the C. S. A. did not at all take into consideration the state and collective farms and the forestry production."

APPENDIX

"In Industry, the so-called non-census enterprises (i. e. those which employ less than 30 workers, without any mechanical power, or 15 workers or less, with mechanical power) have been poorly covered in statistical reports. This applies also to the handicraft producers. Particularly poor were the statistics for construction of dwellings, in industry and in transportation."

"Statistics of population up to 1927 were very deficient. The C. S. A. could not obtain the total figures for the number of births and deaths even in the European part of the U. S. S. R. The Commission calls attention to the necessity of improving these statistics."

"Regarding the All Union census of 1926, the Commission states: 'This census is in reality the first population census since the revolution which really covered the entire territory of the U. S. S. R. and which was conducted with sufficient thoroughness.' The census was primarily demographic-professional."

Industrial Statistics.

"The Statistical Department of the Supreme Economic Council gathers monthly reports of 3500 largest state enterprises. The C. S. A. gathers statistics of the entire census industry, including 16,000 enterprises (in 1927-28) and prepares the index of physical volume of production. For three months the C. S. A. makes a more detailed study of the productivity of labor covering 1000 industrial enterprises. Annually, a study of the entire census industry is conducted. Annually a study of industrial combines (500) is made. An annual study of the petty and handicraft industry covering 190,000 enterprises is made. This applies also to the study of purchasers of industrial products, cooperative industrial organizations, etc. (3000 objects). The C. S. A. also makes a partial study of handicraft cooperatives (from 4-5000). In 1927-28 the C. S. A. was also to complete the study of petty industry on the basis of the 1926 census (up to 5,000,000 blanks).¹

"The Statistical Department of the Supreme Economic Council.

¹ A thorough census of small scale industry is now under way in the U. S. S. R.

APPENDIX

aside from making monthly reports on the principal state enterprises, gathers monthly statistics for wages for 650 trusts and individual enterprises. A monthly study of contracts covering 291 industrial combines and 17 syndicates is also made. Statistics of the financial condition of trusts and syndicates are gathered from 300 combines and 17 syndicates. Quarterly reports regarding the operations of All Union and republican trusts are gathered from 291 industrial combines. Quarterly reports are received regarding the consumption of fuel and power. Semi-annual reports regarding overhead and expenditures in addition to wages are gathered from 650 combines and individual enterprises with a total of 3000 enterprises."

Statistics of Labor (Summary).

"Statistics of labor are gathered by the C. S. A., the Central Council of Trade Unions, the Commissariat for Labor, the Central Social Insurance Administration, the Commissariat for Transportation, the Commissariat for Post and Telegraph and the Supreme Economic Council. The C. S. A. studies primarily the movement of labor power; the utilization of power and the dynamics of wages for the entire census industry are estimated. The number and the wages of employees in State Offices covering 17,500 offices in provincial towns and 22,100 offices in countries are gathered. Annually, the same statistics are gathered from 364,000 offices and trading establishments. In agriculture and forestry, the C. S. A. estimates the number of peasants working for hire in 79,530 districts. It also makes a study of the conditions of labor of workers engaged in agricultural enterprises, of the cost of living in industrial enterprises, etc.

"The Central Council of Trade Unions makes an annual study of the differentiation of wages of industrial workers. It studies rent, cost of living, collective agreements (95,000 annually), the number of members in trade unions covering 70,000 locals, clubs, libraries, strikes, etc.

"The Commissariat for Labor studies labor exchanges, employment, unemployment, the number of peasants migrating to cities for work, statistics of accidents, health statistics for workers, labor conflicts, etc.

APPENDIX

"The Central Social Insurance Administration studies the work of the 601 social insurance units.

"The various commissariats study the labor power employed in enterprises under their supervision."

Agricultural Statistics.

"The C. S. A. conducts the annual spring census covering 10 percent of the sown area, the animals on the farm, etc. (2,505,200 farms in 1927-8). The fall census covering 478,164 selected farms. A total of 61,782 correspondents report to the C. S. A. annually regarding the general crop and other agricultural conditions. Crop conditions are reported twice monthly during the summer by 30,891 correspondents. A total of 265 questionnaires is collected covering the various special branches of agriculture. Over 60,000 questionnaires cover the question of the supply of feed for animals. The dynamics of agricultural economy are studied in over 100,000 peasant economies. The study of collective farms covered but 30 percent of these farms in 1927-28.

"The budgets of peasant families are studied by the C. S. A. on the basis of reports for one month of 10,000 farms and regular reports of 2,000 farms. Short accounts of revenues and expenditures are given by 10,000 farms. The study of food consumption of the urban and the rural population covers 11,600 families in the cities and 26,115 farms. Other work of the C. S. A. covers forestry etc.

"The Commissariat for Agriculture studies the state measures as regards agriculture (statistics of land organization, struggle against drought, migration, supply of agricultural machinery, etc.) It gathers statistics regarding crop conditions from the meteorological stations of the Commissariat and agronomers."

"Statistics of prices in 1927-1928 were gathered, aside from the C. S. A., by the Conjunction Institute of the Commissariat for Finance which has been merged with the C. S. A., by the Central Union of Consumers' Cooperatives, by the Supreme Economic Council, the Commissariat for Trade and the Central Union of Trade Unions. The C. S. A. in 1927-1928 was gathering

APPENDIX

price statistics regarding the bulk wholesale prices, the small-scale wholesale prices, the urban retail prices, the rural retail prices, and prices paid by state and cooperative procuring agencies. These statistics are gathered from 30 to 1700 different locations and cover from 20 to 120 products. Most of these statistics are gathered once a month.

"The C. S. A. estimates both the wholesale and the retail price indexes. It also covers statistics regarding the prices for many agricultural products such as grain, meat, vegetables, cattle, feed, etc. The Conjuncture Institute in 1927-1928 gathered largely statistics of retail prices which are now being taken care of by the C. S. A."

"The Central Council of Trade Unions makes a study of the cost of living index which covers 33 products of general consumption. In 1927-1928 the cost of living index was collected from 110 provincial and 340 country towns.

"Trade statistics of the C. S. A. include a monthly regional study of state, cooperative and private trade for 25,000 enterprises. A study of 50,000 trading establishments is conducted annually on the basis of accountants' reports. A complete annual study of 900,000 trading establishments and individual traders (including peddlars, etc.) is conducted annually on the basis of tax inspectors' reports. Quarterly reports regarding stocks of grain and raw material are obtained from 20,000 to 30,000 organizations. The C. S. A. also makes a study of stocks held by the distributing system of industrial production for the market, of overheads in trades, etc."

"Statistics of Circulation. Financial statistics are gathered by the C. S. A. and the Commissariat for Finance. The C. S. A. in 1927-1928 studied 10,000 differentiated local budgets besides making a detailed study of several hundred selected budgets. It also conducts a study of taxation covering 900,000 trading enterprises and individual merchants, 900,000 handicraft producers including individual artisans, and 700,000 income tax payers."

"Social Statistics. Statistics of social composition and the movement of population are largely gathered by the C. S. A.

APPENDIX

which in 1927-1928 collected monthly reports for the movement of population for nearly 1,000,000 people and annual reports for eleven and a half million people. It also gathers statistics of migration, both internal and abroad, and estimates the population of the U. S. S. R. at the beginning of the year. The Commissariat for Agriculture studies agricultural migrations through certain migration points.

"Health statistics of the C. S. A. cover the registration of cases of illness (over 30,000,000 cases), reports of the hospital system and a study of the sanitary condition of the U. S. S. R."

"The municipal statistics gathered by the C. S. A. cover a study of construction costs, of permits for construction, of peasant construction, housing cooperatives, etc. Other monthly statistics are gathered by the Commissariat for Internal Affairs.

"Educational statistics of the C. S. A. cover largely a census of the school system with (in 1927-1928) 125,000 schools, 350,000 instructors and 12,000,000 students. The Commissariat for Transportation provides annual statistical information regarding 260,000 educational institutions. The Central Transportation Board of Education gathers statistics regarding 5,000 educational institutions under the control of the transportation system.

"Among other statistics of the C. S. A. are statistics of convictions, suicides, consumption of alcohol, etc. The legal statistics are gathered largely, however, by the Commissariat for Internal Affairs.

"Military statistics are gathered by the C. S. A. (covering conscription and the chief administration of the Red Army)."

APPENDIX. INDEXES USED IN THIS REPORT.

Industrial Production for the years 1925/26 to 1929/30 given in producers' prices of 1926/27 by Control Figures: Adjusted to producers' prices of 1913 by applying the "General industrial index of Government trade sale prices" for 1926/27 (192.8). (See Appendix Table II.)

Agricultural Production, as above: Adjusted to producers' prices of 1913 by applying the "Index of producers' prices on agricultural goods with variable gravities of sectors" for 1926/27 (149.3). (See Appendix Table II.)

Marketable Portion of Agriculture for 1925/26—1929/30 given in producers' prices of 1926/27 by Control Figures: Adjusted to producers' prices of 1913 by applying the "General commercial index of agricultural producers' prices estimated as per marketable portion", various groups of commodities based on the variation of price within each group. (See table on p. 579 of Control Figures 1929/30 for indexes item by item, and Report, Table XXV.)

EXCERPTS FROM STATEMENTS CONCERNING PRICE INDEXES
SHOWING METHOD OF CONSTRUCTION OF INDEXES GIVEN IN
CONTROL FIGURES, 1929/30, p. 583 AND PRICE INDEXES AND
PRICES ON AGRICULTURAL PRODUCTS.

1. The price indexes are constructed according to the method of aggregates. The base is the prices of the three years preceding the war 1919/11, 1912/13 and 1913/14. To form these indexes of planned prices the contemporary prices were furnished by the sub-department of price statistics in the Commissariat of Commerce. The planned supplies through an average period of three years 1925/26—1927/28 provide the weights of products and gravities (importance) of districts. To secure a general trade index of traders' prices, the gravities have been taken from an average period of three years 1925/26—1927/28, according to control figure calculations.

To establish the movement of private traders' prices, material of the Census Administration in regard to market prices and the current rural economy statistics have been used. The prices are calculated in accordance with the gravities of the sectors. Sources for pre-war prices were mostly prices gathered by the Ministry of Agriculture. In view of the fact that the Gosplan considers these prices exaggerated in regard to grains and oil-seeds, they have been corrected. Preliminary calculations have established a coefficient of reduction of the pre-war prices on grains by 6 percent. Therefore the levels of the published indexes of the Commissariat of Commerce are higher than those of the usual levels of indexes. At present this coefficient is being made more exact.

APPENDIX

APPENDIX TABLE I. PRICES INDEXES (Yearly Average).

| Control Figures 1926/27, U.S.S.R., p. 306 | | | | |
|--|---------|---------|---------|-----------------|
| (1913 = 100) | | | | |
| | 1923/24 | 1924/25 | 1925/26 | 1926/27 Plan |
| A. Index of Producers' Prices | | | | |
| 1. Rural Economy | 113.4 | 137.1 | 142.0 | 142.0 |
| 2. Industry | 172.8 | 161.9 | 169.1 | 169.1 |
| 3. Total (Marketable Portion) | 142.5 | 151.2 | 157.9 | 158.8 |
| B. Wholesale Price Index of the Gosplan | | | | |
| 1. Rural Economy | 134.2 | 166.9 | 171.0 | 171.0 |
| 2. Industry | 215.7 | 192.4 | 201.0 | 201.0 |
| 3. Total (Marketable Portion) | 175.1 | 181.8 | 189.2 | 189.8 |

APPENDIX TABLE II. PRICES INDEXES (Yearly Average).

| Control Figures 1929/30 U.S.S.R., p. 426. | | | | | |
|---|---------------|---------------|---------------|---------------|-----------------|
| (1913 = 100) ¹ | | | | | |
| | 1925/ 1926 | 1926/ 1927 | 1927/ 1928 | 1928/ 1929 | 1929/30 Plan |
| General Industrial Index of Government | | | | | |
| Trade sale prices (producers' prices) | 198.2 | 192.8 | 185.3 | 184.8 | 180.2 |
| Index of producers' prices on agricultural goods with variable gravities of sectors | 158.8 | 149.3 | 156.4 | 183.3 | 178.8 |
| All-Union wholesale index | 192.0 | 184.7 | 178.4 | 182.3 | 178.8 |
| Budgetary index in full (with variable gravities of sectors) | — | 202.5 | 199.9 | 209.7 | 204.5 |
| Including marketable portion | — | 212.3 | 207.5 | 216.2 | 209.7 |

¹ Except the Rural Economy Index, for base of which the average of 1910/11, 1912/13 and 1913/14 was taken.

2. The valuation of the gross production as well as of the marketable portion of rural economy has been made according to producers' prices. For estimating gross production, prices of non-village marketable portion were taken. These prices at which expropriations of agricultural products are made by peasants on the non-village market, are figured as prices calculated from the prices of both socialized (planned and local)

APPENDIX

furnishers and those of the private sector. Under expropriations to the private sector are to be understood the sale prices to private traders and to the direct city consumer on city markets. The prices of planned traders are taken according to information furnished by the Commissariat of Commerce, because statistics do not take into account supplying prices of governmental and cooperative traders outside of the plan; for these supplies, prices of planned traders were taken, because the indicated prices for the enumerated years on the whole were not very different from the planned prices. For the valuation of expropriations to the private sector there have, on the whole, been used market prices of the Census Administration, calculated mostly by the year, with consideration of the periods of sales on the private market. In addition prices of the Census Administration for the current agricultural statistics were used, figures which had been calculated by the Census Administration at the instruction of the Gosplan. The average-yearly prices throughout U. S. S. R. are obtained as a result of calculating the average yearly prices of districts according to the weights of the marketable portion of each year, taking into account the weights of the categories of traders in each year (governmental, cooperative and private). Because the former data have been made more accurate, and also because new information had been obtained when making up the control figures for 1929/30, in the valuation of agricultural production and marketable portion according to cycle prices and peasant budget prices, the prices used for the valuation of agricultural production and marketable portion in the control figures for 1929/30 differ from the prices taken in the five-year plan for all indicated years. Aside from this, divergencies in the prices of 1928/29 and 1929/30 may be explained by the five-year plan taking no account of the increase of agricultural prices which took place in 1928/29.

EXCERPT FROM REPORT OF THE CENTRAL STATISTICAL ADMINISTRATION OF THE U. S. S. R. (C. S. A.) ON SOVIET STATISTICS.

"The weaknesses and the strong points of Soviet statistics are directly traceable to the position in the entire system of national economy of those branches to which these statistics apply. That is, the Soviet statistics for industry or, to be specific, large scale industry, are exact and very detailed, perhaps too detailed from the point of view of the expenditures involved in gathering them for the reason that the 3,500 industrial enterprises under the direct supervision of the Supreme Economic Council are legally obligated to submit statistics on the 5th of every month covering their operations for the previous month."

"The same applies, for instance, to the financial statistics collected by the Commissariat for Finance from the principal Soviet banks the capital of which is owned by the Commissariat and which are therefore directly responsible to the Commissariat in all its operations and its statistical information in particular."

"On the other hand, statistics for agriculture have been in the past quite unreliable. This is due primarily to the fact that none of the 25 million farms to be found in various parts of the country are under any obligation to the Central Statistical Administration to supply information regarding areas sown, yield per acre, crops, number of horses, etc. On the contrary, the Soviet peasants are, perhaps in the majority of instances, afraid of collectors of statistics, for every acre of land sown, every horse and cow is subject to taxation."

"In short, those branches of national economy which have been nationalized to a great extent and the statistical reports of which are used for direct practical and particularly administrative purposes give statistics which are as reliable as, or perhaps more reliable than, those obtainable in the same branches of national economy in other countries."

"On the other hand, agricultural statistics, statistics for handicraft enterprises and others where the individual entrepreneur is not in any way obligated to supply statistical data to the organization

APPENDIX

collecting such, are in most cases manifestly poor. The reasons for this are obvious if one remembers the tremendous distances, the absence of good roads, the peculiar climatic conditions, the cultural backwardness and the prejudices, etc., which still prevail in many parts of the Soviet Union."

"The often heard complaints against the statistics collected by the C. S. A. as contrasted with those gathered by the Supreme Economic Council in charge of industry, the Commissariat for Transportation, the Commissariat for Finance or the Commissariat for Trade, can well be explained on these grounds, namely, that the C. S. A. is entrusted with collecting those statistics which are not immediately procurable by the Commissariats in charge of the various branches of national economy of the Soviet Union. The most frequent complaints are, of course, against agricultural statistics. A serious attempt to remedy the situation is now being made with the recent change in Soviet economic policy which tends to devote infinitely more attention to agriculture. It is worth noting that even the statistics for state and collective farms which are always particularly favored by the Soviet authorities were very poor only two or three years ago. It may be expected that within a year these (agricultural) enterprises will be put on a par with industrial establishments reporting to the Supreme Economic Council as regards the statistical information which they will be required to supply."

EXCERPTS FROM CONSTRUCTION OF INDEXES. TRANSLATION
OF INDEX NUMBERS BY IRVING FISHER. PUBLISHED BY THE
C. S. A., U. S. S. R. MOSCOW 1928.

Article by A. S. Yanovskii "Russian Indexes,
p. 424.

... 1913 was taken as a basis in the new index of wholesale prices. The average basic prices were determined mainly by the method of estimates and also by "the summary of commodity prices". In the case of many commodities it was possible to establish a very large number of prices. But in the case of others only the prices on the largest markets were found. . . .

Together with 1913 as a basis another basis, that of April 1924, was introduced in which calculations were made for independent categories (rows) which were usually denoted as indices "at the time of money reform."

The list of commodities of the new index which differed very little from the old ones includes 71 names (items), which are combined into the 17 groups. In addition to these 17 independent group indices 11 summary indices are calculated among which, besides the usual sub-indices - the agricultural and industrial - there are also sub-indices of commodities of personal use and production-technical commodities.

Commodity weights were determined by data of the production for 1922-23 in the following manner: The commodity portion of production was evaluated on the basis of 1913 prices and the total obtained for each industrial commodity was multiplied by the coefficient of the rise in prices toward April 1924 as compared with pre-war days which are determined by the general industrial index of the Supreme Economic Council, while for each agricultural commodity there was a direct evaluation of production on the basis of 1924 prices. Then by the method of estimates the "coefficient of turnover" was determined for each commodity in wholesale trade and by multiplying by this figure it was possible to obtain the wholesale turnover, namely, the commodity weight required.¹ The turnovers obtained by this method were approximately the same amounts for agricultural commodities and industrial commodities (4.399 million rubles

¹ This operation is undoubtedly the weakest spot in the whole system.

APPENDIX

for agricultural and 4,574 million rubles for industrial commodities) which came very close to the previously established method² of obtaining the general commodity index by the method of simple geometrical means based on the agricultural and industrial sub-indices.

The city weights (volumes) were obtained from the materials of the industrial census of the Central Statistical Administration of 1923 and individual weights are given only for nine large cities while the other cities are combined in the ten regions (rayons) or districts and commodity weights are given for the entire district. Within each region, therefore, an equal weight was given to all cities. The general weight of the largest cities was determined on the basis of the number of trading organizations in various branches of trade and by the number of persons employed therein. On the basis of all data this weight was calculated to be close to 65 percent, and this is introduced into the index-weights.

The calculation of the described indices is made for the 1st, the 11th and the 21st of each month.³ In addition to this, semi-monthly, semi-quarterly, semi-annual and annual industrial (October—September) and agricultural (July—June) indices are calculated for all commodity groups.

In addition to the All-Union wholesale price indices, calculations are also made of regional indices for the following large regions: the consuming and producing Ukraine with the Crimea, also the Caucasus with the Transcaucasian Republic, and separately the Moscow index. But in the latter in addition to the agricultural, industrial and general commodity indices, only indices for grain and flour are calculated and these contain the commodities of group 1 and group 2 of the All-Union index and other agricultural commodities.

We pointed out above that the authors of the index aimed to create a continuous range of ten-day "gold" indices beginning with August 1, 1922. However, direct calculation would have

² This method was established by the inter-departmental index commodity of the Gosplan of the U. S. S. R.

³ Beginning with May 1928, the system of calculating indices once a month based on the prices of the first of the month was introduced.

APPENDIX

been extremely clumsy, hence they resorted to group divisions of the old index and by means of successive division by the latter, the necessary ranges were obtained.

The nomenclature of the first index of the Supreme Economic Council was composed of 70 commodities, combined into 11 groups with 8 sub-divisions.

The year 1913 was used as a basis for the index, and the large-wholesale prices of commodities in that year were determined by the few preserved price lists, handbooks and trade books of the largest pre-war trade and industrial firms: necessary corrections were introduced by a method of estimates because in those days the price lists were intended not so much for buyers as for competitors.

The described index is published monthly in Torg. Prom. Gazeta and in the bulletins of Ts. O. S. of the Supreme Economic Council.

ADDENDUM

LE CHOMAGE INTERNATIONAL - ÉTUDE DES
FLUCTUATIONS DE L'EMPLOI ET DU CHOMAGE DANS
DIVERS PAYS, 1910-1930 - INTRODUCTION ET RÉSUMÉ PAR
MARY VAN KLEECK, D.RECTRICE DES ÉTUDES INDUSTRIELLES
RUSSELL SAGE FOUNDATION, VICE-PRÉSIDENTE DE L'I.R.I.,
NEW YORK, E. U. A.

INTRODUCTION.

Nous présentons ici une série d'études sur les fluctuations dans l'emploi de la main d'oeuvre. Elles ont pour objet de décrire les cycles de chômage dans différentes parties du monde, au cours des deux décades aboutissant à la crise industrielle qui sévit à l'heure présente dans le monde entier. Sous deux rapports différents, ces études offrent le caractère de travaux préparatoires.

1) Elles visent d'abord à fournir les éléments premiers de débats qui porteront sur les aspects internationaux de chômage, et se dérouleront au congrès général des relations industrielles pour "L'Aménagement social et économique", convoqué à Amsterdam, Pays-Bas, en Août 1931 sous les auspices de l'Association internationale industrielle.

2) D'autre part, ces études ont été entreprises dans l'espoir de provoquer des recherches ultérieures appelées, soit à s'étendre à un nombre plus considérable de pays, soit à porter de manière plus détaillée sur les faits relatifs aux pays touchés par la présente enquête.

Le chômage constitue un symptôme économique plutôt qu'une manifestation définie, et qui revient toujours sous la même forme. Loin de présenter, en effet, des caractères invariables, chaque période de chômage a offert des aspects variés selon les différents pays du monde où elle survenait. Ces aspects changeants reflètent des troubles économiques qui diffèrent par leur gravité relative, et pour cette raison, déterminent en se combinant, un ensemble distinct de circonstances, à chaque retour de crise. Comme d'autres éléments du phénomène désigné sous le nom de cycle économique, les oscillations dans

INTRODUCTION ET RÉSUMÉ

l'emploi de la main d'oeuvre constituent, pour les économistes, un sujet dont l'intérêt assume rapidement une importance croissante, surtout aux Etats-Unis, en Allemagne et en Grande-Bretagne.

Certes, par leur caractère variable et évasif, les conditions qui président à ces changements dans la vie économique incitent les spécialistes à de nouvelles recherches scientifiques, mais elles découragent en même temps ceux qui croyaient à une direction possible du cycle par les milieux économiques et par l'Etat. Ce n'est pas ici le lieu d'esquisser un tableau, même sommaire, des résultats de ces études sur les changements économiques et sur tous les problèmes du plus vif intérêt que soulèvent la technique du pronostic économique et la recherche des causes, de ces phénomènes, - questions pour l'examen desquelles la possession de données statistiques constitue d'ailleurs une condition préalable de travail. Comme il s'agit ici d'un congrès international dont l'étude du chômage a fourni l'idée première, il nous suffira de dire que les économistes spécialisés dans l'observation des phénomènes cycliques en sont venus à donner une place toujours plus grande au chômage et à l'emploi de la main d'oeuvre, parmi les sujets proposés à leur examen critique.

En outre, ils commencent à formuler l'avis que ce sujet ne devrait plus être étudié séparément dans les différents pays, mais devrait au contraire faire l'objet de recherches comparables entre elles, et propres, par conséquent, à indiquer dans quelle mesure les relations économiques internationales influent sur les fluctuations dans chaque pays.

C'est ainsi par exemple que nous relevons les lignes suivantes dans le livre récemment publié de M. le Prof. Ernst Wagemann de Berlin, président de l'Office Statistique National Allemand, et Directeur de l'Institut Allemand pour les recherches sur le cycle économique.¹

¹ M. le Dr. Wagemann est aussi professeur à l'Université de Berlin, et membre honoraire de la Société royale de statistiques et de l'Institut international de statistiques.

INTRODUCTION ET RÉSUMÉ

Ce livre, paru en allemand sous le titre de "Konjunkturlehre" (Science des conjonctures) a été traduit en anglais sous celui de "Le Rythme économique":

"Les fluctuations dans le niveau d'emploi de la main d'oeuvre déterminent des pertes de revenus. Ces pertes sont comparativement insignifiantes par rapport au montant total des biens que crée l'activité économique, quand on la considère dans son ensemble. Mais l'existence d'un effectif de chômeurs qui atteint, à certains moments, des centaines de milliers et même des millions d'individus, suppose une somme extraordinaire de souffrances et de privations. Il semble donc que dans tout le domaine de la politique économique, l'une des questions d'importance souveraine doive être celle qui consiste précisément à éliminer ces fluctuations."²

Le Président Hoover a reconnu de son côté l'importance du chômage comme élément d'étude des cycles économiques. En 1921, lorsqu'il n'était encore que Secrétaire du Commerce dans le gouvernement des Etats-Unis, il a institué la commission du chômage et des cycles économiques, présidée par M. Owen D. Young, président du conseil d'administration de la "General Electric Company". En 1923, parlant du rapport de cette commission, M. Hoover a écrit ce qui suit:

"Le problème tout entier ressortit à une catégorie étendue de questions dont nous devons, en tant que peuple, aborder la solution au cours de notre campagne pour l'élimination du gaspillage, si nous voulons maintenir nos niveaux d'existence déjà élevés et les porter plus haut encore. Aucune perte n'est plus grave que celle du chômage, aucune souffrance n'est plus aiguë ou ne comporte plus de désespoir que celle qu'implique, pour les malheureux en quête de travail, l'impossibilité de trouver une occupation."³

Les fluctuations dans l'emploi de la main d'oeuvre ne constituent pas seulement un sujet important en lui-même, elles représentent aussi un baromètre de la situation économique générale. Dans le livre déjà cité, M. le Prof. Wagemann déclare en effet:

² Wagemann Ernst, "Economic Rhythm", McGraw-Hill Book Publishing Co., inc. New York 1930. Chapitre XXII; Stabilisation économique et élimination des cycles, p. 230.

³ Département du Commerce des Etats-Unis. Cycles économiques et chômage. Rapport et proposition d'une des commissions de la conférence présidentielle sur le Chômage (Owen D. Young, Clarence M. Woolley, Joseph M. Defrees, Matthew Woll, Mary van Kleeck, Erward Eyre Hung, secrétaire), avec une préface par Herbert Hoover; Washington, Government Printing Office, 1923, p. 6.

INTRODUCTION ET RÉSUMÉ

"Si nous avons choisi le niveau d'emploi de la main d'oeuvre comme principal sujet des recherches relatives au cycle économique, c'est pour la raison particulière qu'il constitue, à notre avis, le meilleur indice général de l'allure affectée par le cycle économique national, tout au moins quand il s'agit de la situation existant à cette heure en Allemagne."⁴

Jusqu'ici la portée des recherches sur le chômage a été principalement d'ordre national, mais les économistes commencent à reconnaître qu'il est nécessaire de procéder maintenant à ces études dans le domaine international. C'est ainsi que l'un des pionniers des recherches sur les cycles économiques, M. le Dr. Wesley C. Mitchell, de l'Université Columbia, a écrit les lignes suivantes dans son dernier ouvrage intitulé "Les cycles économiques - Le problème et son cadre":

"Au cours de ces dernières années, les annales (des cycles économiques) ont révélé que ces cycles se conformaient toujours plus à un type international. Pareille constatation montre que l'influence comparative des facteurs internationaux est en voie d'accroissement dans la détermination des dits cycles".⁵

Mais les livres mentionnés ici comme d'ailleurs d'autres ouvrages encore qui ont retenu notre attention n'ont pas pour objet primordial d'étudier l'emploi de la main d'oeuvre et le chômage. En outre, ni les uns ni les autres ne fournissent des données relatives à plusieurs pays différents et ne cherchent à instituer des comparaisons dans l'ordre international. Aussi pour recueillir les renseignements nécessaires aux travaux du congrès, les représentants de l'Association internationale des relations industrielles ont-ils conféré avec certains fonctionnaires de l'Organisation internationale du travail et de la Section économique de la Société des Nations. Ces entretiens ont eu lieu en septembre 1930. L'organisation économique de la S. d. N. a estimé que le chômage et les conditions de la main

⁴ Op. cit., chapitre XXI, L'emploi de la main d'oeuvre comme indice du mouvement cyclique, page 222. Les spécialistes des cycles économiques confirmeraient certainement que cette déclaration concernant l'Allemagne est valable également pour d'autres pays.

⁵ Mitchell, Wesley C. "Les cycles économiques - Le Problème et son cadre" (Business cycles - The Problem and its setting). National Bureau of Economic Research, New York, p. 450.

INTRODUCTION ET RÉSUMÉ

d'oeuvre ne sont pas de son ressort, mais rentrent dans la compétence de l'Organisation internationale du travail. Toutefois, les travaux de la Société sur les questions économiques générales ont traité directement aux conditions de la vie économique d'où résulte le chômage. Citons par exemple les enquêtes qui ont été décidées par l'Assemblée de la Société des Nations et portent sur la répartition des réserves d'or et sur la crise économique universelle. Mais nous ne pûmes néanmoins nous procurer à cette source de statistiques propres à nous renseigner sur les fluctuations dans l'emploi de la main d'oeuvre.

Il existe, d'autre part, au Bureau International du Travail une section qui poursuit des recherches sur le chômage et les migrations et a frayé des voies nouvelles dans un rapport sur certains aspects internationaux du chômage, 1920-28.⁶ Publié en 1929, ce rapport a traité d'abord à l'influence des fluctuations monétaires, puis au chômage dans deux industries, les houillères et le textile et enfin au chômage et aux migrations internationales. Le Bureau a établi à la même époque un rapport relatif à l'influence des travaux publics sur le chômage et une étude comparative sur les Bourses de travail publiques, pour faire suite à une étude du même genre sur l'assurance contre le chômage.

Mais le service de statistique du Bureau international du travail n'a poursuivi aucune étude qui corresponde directement au programme de l'I. R. I., bien que la "Revue internationale du Travail" publie des chiffres indiquant, pour différents pays, les changements annuels survenus dans l'emploi de la main d'oeuvre et le chiffre des salaires. En outre, certaines études spéciales du B. I. T. sont de nature à intéresser le Congrès. Citons par exemple un rapport récent sur les charbonnages

⁶ Bureau International du Travail, "Unemployment - Some International Aspects", 1920-28 (Note de l'éditeur: Le titre français officiel n'était pas reçu en temps pour être inséré). Rapport présenté à la XII^{ème} section de la conférence internationale du travail, mai-juin 1929, dans "Études et Rapports" série C: Emploi de la main d'oeuvre et chômage. no. 13.

INTRODUCTION ET RÉSUMÉ

qui montre les différences entre les salaires et les niveaux d'existence des mineurs en différents pays et un rapport, encore inédit à la date où nous écrivons, qui a trait au niveau d'existence dans les villes où se trouvent des usines Ford. Ce rapport, dont les frais de publication sont assumés par le XXth Century Fund (Etats-Unis), a pour objet de recueillir des renseignements destinés à faciliter l'exécution de la politique formulée par M. Ford, désireux de payer, dans les pays européens des salaires qui permettent aux ouvriers d'accéder à un niveau d'existence égal à celui des ouvriers Ford vivant à Détroit.

En dehors de ces recherches, il n'a pas été constitué, à Genève, d'archives telles que nous les cherchions et relatives aux fluctuations d'emploi dans différents pays. Toutefois, l'Organisation Internationale du Travail a généreusement offert - et non moins généreusement accordé par la suite -, sa collaboration aux économistes qui ont entrepris, en notre nom, une enquête sur ces questions. Mais néanmoins, si nous voulions disposer de matériaux suffisants pour servir d'éléments premiers aux débats du congrès, la nécessité s'imposait d'entreprendre des recherches spéciales. Nous ne désirions pas seulement nous occuper de la situation présente, ou plutôt nous étions si profondément préoccupés de la gravité du problème actuel du chômage, que nous estimions impossible de limiter notre attention à la période où nous nous trouvons et jugeons nécessaire, au contraire, de constituer un tableau statistique qui, pour une période de 20 ans, donnerait la mesure des changements survenus dans l'emploi de la main d'oeuvre et dans le chômage. Sans cet aperçu rétrospectif, il nous semblait en effet impossible d'apprécier avec exactitude les circonstances présentes.

L'Association internationale des relations industrielles n'est pas, en elle-même, un centre de recherches et sa tâche se borne en général à organiser des congrès et des conférences, mais quand l'occasion s'en présente, il rentre dans son rôle de faciliter les enquêtes portant sur les sujets inscrits à son pro-

INTRODUCTION ET RÉSUMÉ

gramme. Dans le cas présent, elle a été assez heureuse pour s'assurer la collaboration d'économistes appartenant à un certain nombre de pays différents. Citons ici les noms de M. le Dr. F. C. Benham, de l'École des Sciences Economiques et Politiques de Londres, ancien maître de conférences à l'Université de Sydney, Australie, qui a préparé les rapports sur la Grande Bretagne, la France et l'Australie; de M. le Dr. W. A. Berridge, expert économique de la Metropolitan Life Insurance Company, E. U. A. et membre de la commission pour étudier des statistiques officielles du travail, (Cette commission range au nombre de ses travaux, l'extension et l'unification des statistiques d'emplois et de chômage aux États-Unis et au Canada), qui a rédigé les rapports sur les États-Unis et le Canada; de M. le Dr. Robert Wilbrandt, ancien professeur à l'Université de Tubingue, Professeur à l'Université technique de Dresde, qui a établi le rapport sur l'Allemagne; de MM. L. K. Tao et S. H. Lin de l'Institut de recherches sociales à Peïping, qui ont entrepris le même travail pour la Chine; Mmes les Docteurs Susan M. Kingsbury et Mildred Fairchild de Bryn Mawr College, E. U. A. qui ont procédé à une étude originelle des statistiques dont on dispose sur la Russie d'avant la guerre, et ont examiné l'allure suivie ultérieurement par l'emploi de la main d'oeuvre dans l'U. S. S. R. Ce travail contient des données qui n'ont encore jamais fait l'objet d'aucune étude des statisticiens de l'Union des Soviets. Tous ces économistes ont bénéficié du concours d'autres chercheurs encore et désirent adresser ici à ces derniers tous leurs remerciements, auxquels se joignent ceux de la commission du programme. C'est ainsi que M. S. Brand, bachelier ès sciences commerciales a collaboré avec M. le Dr. Benham; M. Cedric Wolf a aidé le Dr. Berridge à établir le rapport sur les États-Unis; M. F. W. McComas, Jr., a contribué au rapport sur le Canada, M. le Dr. Gerhardt Isenberg a collaboré avec le Dr. Wilbrandt. Parmi les étudiantes du Bryn Mawr College, qui ont apporté leur contribution à Mmes les Drs. Kings-

INTRODUCTION ET RÉSUMÉ

bury et Fairchild, nous tenons à mentionner Mme M. Andrée Miskolczy de Budapest et nous désirons également remercier pour ses traductions du russe, Mlle May Rollins Smitt, née et élevée à Riga, élève des cours de langues étrangères à l'Université de Pétrograd, puis à la Sorbonne.

L'Association internationale des relations industrielles a disposé de ressources suffisantes pour mener à bien ces travaux, grâce aux subventions allouées par la Fondation Russell Sage et inscrites au budget du Service des études industrielles de cette dernière. Les statuts de la Fondation bornent, à vrai dire, la portée de ces travaux aux questions qui intéressent en propre les Etats-Unis, mais d'autre part, le Service des études industrielles avait inscrit à son programme d'accorder un concours à la Commission des statistiques officielles de la main d'oeuvre, - créée par l'Association américaine -, pour aider la dite commission dans la tâche consistant à améliorer les statistiques officielles de la main d'oeuvre aux Etats-Unis. Or le Canada fait partie également de cette commission; en outre il est évidemment de grande importance que les statistiques des Etats-Unis, voire celles d'un pays quelconque, puissent être comparées avec celles d'autres pays. Il était donc rationnel, pour cette raison, de favoriser les recherches entreprises en vue de notre congrès, car il y avait lieu d'espérer qu'elles donneraient de l'impulsion au mouvement tendant à rendre uniformes les statistiques internationales. Les crédits accordés ont servi surtout à couvrir des frais de déplacement et à solder les dépenses de recherches statistiques et de travaux de bureau, puis à allouer de modiques honoraires à certains des économistes occupés par nous. Ajoutons d'ailleurs que les travaux de ces derniers représentent en majeure partie, une contribution gracieuse à l'oeuvre du congrès. Nous leur exprimons ici, ainsi qu'à leurs diverses organisations, notre entière reconnaissance.

Au début, nous avons espéré que ces études donneraient lieu, en se poursuivant, à un échange réciproque de renseignements

INTRODUCTION ET RÉSUMÉ

suffisamment actif pour qu'il soit possible de présenter un rapport commun, mais le manque de temps nous a empêchés d'établir ce rapport, aussi la plupart de ces études représentent-elles des travaux exécutés de manière indépendante dans les différents pays, qui n'ont pas fait l'objet d'une interprétation commune ou d'un échange approfondi d'indications sur la marche à suivre pour les mener à bien.

Toutefois, au cours de la période précédant le début de ces études et pendant leur mise en train, la commission du programme avait préparé un plan général, exposant le but et la portée de l'enquête tendant en même temps à rendre plus ou moins comparables les éléments de l'ensemble final.

Le sujet du Congrès sous la forme où il était alors formulé, portait sur l'ajustement scientifique des ressources économiques de la production et de la consommation en tant que facteur essentiel de l'établissement des relations humaines satisfaisantes dans l'industrie. L'intérêt de l'Association se concentrait sur les aspects sociaux et humains de cette question, tels que les mettait en relief la disparité existant, d'une part, entre les progrès considérables accomplis par la capacité de production, et d'autre part, l'état fâcheux de la sécurité d'emploi et du niveau de l'existence.

La première séance du Congrès devait donc être consacrée à présenter les faits relatifs à la nécessité économique de l'heure présente, au paradoxe de crises cycliques dans une période où croissent les virtualités d'utilisation des ressources économiques. Afin de préparer l'étude de ce thème, nous avons demandé aux économistes consultés d'établir des rapports fournissant des données statistiques tant sur les fluctuations dans l'emploi de la main d'oeuvre que sur les époques et l'intensité de ces fluctuations pour la période s'étendant de 1910 à 1930. Ces données devaient se rapporter à certains pays dont les diverses situations économiques constitueraient des spécimens illustrant les divers types ou degrés de troubles économiques. Nous demandions également aux spécialistes interrogés de présenter, parallèlement à ces statistiques, les matériaux numériques et descriptifs qu'il leur serait possible de recueillir, toujours pour les mêmes pays, sur les changements survenus dans les salaires effectifs et dans les niveaux d'existence, au cours de la période de 20 ans choisie. Nous envisagions également un aperçu d'ensemble indiquant les caractéristiques principales des ressources économiques dans le monde entier et décrivant les changements subis par la capacité de production au cours de ces 20 dernières années; cet aperçu destiné tant à servir de cadre aux diverses études que de tableau général des tendances, devait constituer le sujet de la communication présentée par M. le Dr. Otto Neurath, Directeur du Musée social et économique de Vienne, alors que le

INTRODUCTION ET RÉSUMÉ

reste des renseignements recherchés devait figurer dans les études distinctes se rapportant à chaque pays.

Nous insistons sur le fait que l'enquête devait nettement se concentrer sur le phénomène des changements survenus dans l'emploi de la main d'oeuvre et dans le chômage, - c'est-à-dire sur les fluctuations dans les dates et dans la valeur des maxima et des minima de la courbe -, plutôt que sur les chiffres absolus mesurant le degré de chômage à un moment quelconque, car il n'aurait pas été possible de se procurer ces chiffres sous une forme prêtant à une comparaison entre les différents pays. Les recherches entreprises avaient donc pour but de recueillir les matériaux bruts sur lesquels porteraient les débats de la première séance. En outre - et ce point revêtait une importance souveraine - l'enquête devait présenter ces matériaux de manière à mettre en relief la possibilité d'instituer des enquêtes internationales plus complètes et plus étendues encore, sur les fluctuations dans l'emploi de la main d'oeuvre.

Voici, dans l'ensemble, en quoi devaient consister les renseignements cherchés pour chaque pays:

1. Indication précise des sources des données recueillies spécifiant quelle administration d'État ou quelle organisation les avaient rassemblées. Programme exact suivi pour rassembler ces données à l'origine, accompagné de toutes observations relatives aux conditions dans lesquelles les statistiques avaient été dressées et de toutes remarques propres à indiquer leur portée et leur valeur informatives. (Ces matériaux ne devaient naturellement figurer qu'en appendice et n'être publiés que sous une forme résumée, mais ils pouvaient être utiles pour procéder à des comparaisons d'ordre international et pour dresser le programme de recherches futures.)

2. Relevés annuels (c'est-à-dire éliminant les fluctuations saisonnières) et globaux des fluctuations dans l'emploi de la main d'oeuvre de 1910 à 1930, pour chaque pays.⁷

Étant donné que la constitution industrielle de ces pays variait dans une mesure très considérable, cette courbe totale de tendances devait se fonder sur tous les indices disponibles et devait représenter la situation dans chaque pays faisant l'objet d'un rapport. Il convenait naturellement de décrire la constitution industrielle de ces divers pays, mais il y avait lieu de croire qu'elle ne serait jamais semblable dans deux pays différents.

3. Relevés chronologiques semblables aux précédents, mais portant sur le chômage à établir, dans le cas où l'on disposerait des données nécessaires.

4. Relevés chronologiques distincts portant sur les fluctuations dans l'emploi de la main d'oeuvre et dans le chômage, au cours de la même période.

⁷ Pour certains pays, il pouvait être impossible de se procurer des statistiques correspondant chronologiquement aux 20 années en question. Ces dates extrêmes n'étaient donc indiquées qu'à titre de limites générales de la période à étudier.

INTRODUCTION ET RÉSUMÉ

mais pour les diverses industries considérées séparément. L'on désirait particulièrement se procurer, si possible, ces relevés distincts pour (a) la production de charbon; (b) la production d'acier; (c) les transports par voie ferrée; (d) le mouvement de la navigation; (e) les métaux et la construction mécanique; (f) les textiles; (g) le bâtiment.

L'on reconnaissait, bien entendu, qu'il serait peut-être impossible d'étendre l'enquête à toutes ces industries, mais la liste ci-dessus visait simplement à indiquer les industries de nature tant à présenter une importance particulière pour les comparaisons d'ordre international qu'à déceler, pour chaque pays, les changements survenus dans l'emploi de la main d'oeuvre.

6. Eclaircissements sur les caractéristique du chômage en 1930, par l'effectif de la main d'oeuvre, particulièrement dans les industries soumises à des changements d'ordre technique au cours des 20 dernières années.

6. Eclaircissements sur les caractéristiques du chômage en 1930, par comparaison avec une dépression antérieure dans la courbe d'emploi (ou vice versa une pointe antérieure dans la courbe du chômage), au cours de la période de 20 ans choisie.

Il y avait lieu de supposer que certaines recherches sur les causes du chômage avaient été entreprises à divers moments au cours de cette période de 20 ans. Des résumés succincts de ces études et des observations à leur sujet devaient, présenter de l'intérêt, si elles étaient conçues de manière soit à soulever des questions intéressantes, soit à préciser les constatations recueillies quant à la portée du chômage actuel et particulièrement des facteurs nouveaux et des influences internationales qui entrent maintenant en jeu.

7. Salaires et niveaux d'existence. Dans certains pays, (aux Etats-Unis par exemple), l'on dispose d'indices de gains ouvriers qui sont établis en même temps que les indices d'emploi de la main d'oeuvre. Il importait beaucoup partout où la possibilité s'en présenterait, de reproduire ces deux statistiques conjuguées et de les disposer parallèlement aux statistiques sur l'emploi de la main d'oeuvre et sur le chômage. Mais comme de sérieuses difficultés pouvaient surgir quand il s'agirait de recueillir ces matériaux, il ne convenait pas de consacrer trop de temps ou de peine à ce travail.

Quant aux niveaux d'existence et aux changements accusés par eux, bien que ces phénomènes constituassent naturellement un des sujets essentiels de l'enquête, l'on pourrait probablement dans le cas des recherches préliminaires envisagées, les étudier de manière suffisante si l'on se bornait à en examiner les changements les plus frappants. Lorsque l'on se trouverait en mesure de recueillir des observations à cet égard, il y aurait lieu de les concentrer autant que possible sur les deux périodes de chômage choisies comme termes de comparaison (à savoir 1930 et une période antérieure).

Les instructions adressées aux enquêteurs reconnaissent d'ailleurs que les données rassemblées seraient difficilement comparables et formulaient à cet égard les considérations suivantes:

INTRODUCTION ET RÉSUMÉ

La somme de données disponibles variera naturellement beaucoup; elle s'étendra de la foule de renseignements relatifs à la Grande-Bretagne, jusqu'à l'absence de matériaux statistiques constatée en Chine. Dans certains pays comme la Grande-Bretagne ou l'Allemagne, les renseignements émanant des services d'assurance contre le chômage permettent d'exprimer ce dernier par des chiffres précis. Aux États-Unis et au Canada par contre, nous devons nous en remettre entièrement aux informations concernant les tendances accusées par l'emploi de la main d'oeuvre. C'est donc précisément parce que toutes ces données sont très difficilement comparables qu'il importe de concentrer l'attention sur les époques et sur l'intensité du changement, tel que le traduisent les tendances relevées dans l'emploi de la main d'oeuvre. C'est aussi pour cette raison qu'il convient d'utiliser à cette fin les données sur le chômage et autres relevés statistiques exprimant les changements survenus dans la situation économique, à cause de la lumière que ces renseignements peuvent jeter sur la situation aux époques de changements, dans les pays où les ressources statistiques sont les plus abondantes.

Les sources à dépouiller devraient être les suivantes:

(1) Les statistiques des effectifs ouvriers inscrits sur les feuilles de paie et le total des salaires, renseignements à exprimer de préférence en chiffres mensuels, mais qui pourront être ramenés à des chiffres annuels.

(2) Les statistiques de chômage, qui devront être utilisées plutôt pour déterminer les époques et l'intensité des changements que pour fournir des renseignements en chiffres absolus sur l'étendue de ce chômage.

(3) Les statistiques des bureaux de placement officiels.

Après avoir déterminé l'époque des changements dans les différents pays, il conviendra alors de concentrer l'effort de recherche sur certaines de ces époques et de procéder ainsi à une étude approfondie des conditions dans lesquelles le changement s'est produit à de tels moments. Cette étude devrait comporter des relevés statistiques de la production de la situation économique ainsi que tous autres renseignements recueillis d'habitude dans les recherches relatives aux cycles économiques. Il conviendra également de présenter, pour les mêmes périodes, des informations descriptives et statistiques indiquant les changements survenus dans les salaires effectifs et dans les niveaux d'existence.

Le choix des pays à étudier a été dicté en partie par la possibilité de faire appel à des enquêteurs s'occupant déjà de travaux analogues, en partie par le caractère de types économiques que revêtent ces pays et par l'importance extrême qu'assume pour le régime économique du monde la situation où ils se trouvent à présent.

458 Néanmoins, l'objet que nous nous proposons n'était pas de

INTRODUCTION ET RÉSUMÉ

fournir au congrès des matériaux dont nous donnerions une interprétation d'ordre national, établie par rapport à la situation individuelle de chacun des pays choisis; nous désirions plutôt faire état de ces matériaux pour la présentation de spécimens typiques (1) de régions à ressources et à productivité surabondantes; (2) de régions à ressources incomplètes et à débouchés limités; (3) de régions entrées depuis peu dans une ère industrielle.

Nous tenons à expliquer dans quelles conditions ont dû travailler les économistes dont nous présentons ici les rapports et désirons non seulement signaler que le temps et les ressources dont ils disposaient ont été limités, mais marquer aussi qu'il a été nécessaire de restreindre l'espace mis à leur disposition. Nous avons dû leur demander de limiter les rapports pour chaque pays à 30 pages dactylographiées, c'est-à-dire à environ 10.000 mots. Nous les avons priés en outre de nous fournir un travail encore plus condensé sous forme d'un sommaire de leur rapport, limité à 800 mots pour chaque pays. Nous les priions également de joindre à leur rapport un appendice indiquant la portée exacte des données utilisées et de grouper dans un tableau supplémentaire toutes les statistiques importantes qu'il aurait été impossible de comprendre dans les limites adoptées. Ces renseignements additionnels, bien que très importants, étaient trop détaillés pour être publiés ici. Etant donné les éclaircissements qui précèdent, il conviendra donc de se rappeler que les données reproduites ici sont le résultat d'un choix dans les matériaux plus étendus, mais qui ne faisaient néanmoins que confirmer les conclusions principales formulées dans les rapports.

RÉSUMÉ.

Comme l'indique le précédent exposé du but de ces études, chaque analyse se limite à une nation, bien que plusieurs de ces études, faites sur le plan national, prennent en considération des influences internationales. Dans le programme du

INTRODUCTION ET RÉSUMÉ

Congrès, il était réservé au Dr. Max Lazard, de Paris, de rassembler les données sur le chômage et d'interpréter les diverses études sur ce sujet en un rapport sur "la signification du chômage universel". C'est en abordant cette question que le Congrès s'ouvrit. Durant la même séance, le Dr. Otto Neurath, de Vienne, présenta un rapport sur "Les progrès récents de la capacité de production dans le monde". Et ces deux rapports formaient dans leur ensemble une synthèse pour la discussion sous le titre suivant: "Le paradoxe de l'heure présente. - Le chômage en plein progrès économique."¹

Le but de cette introduction n'est pas d'essayer de résumer les documents de ces études particulières, qui parlent par eux-mêmes, ni la brillante interprétation du Dr. Lazard, que nos lecteurs désireront sans doute étudier dans son ensemble. Il semble utile, cependant, de revenir sur certains aspects du rapport du Dr. Lazard et d'y ajouter quelques commentaires sur les points qui touchent spécialement à l'aménagement économique et social.

Le thème du Congrès - aménagement économique et social - se trouvait expliqué par le sous-titre: "Nécessité d'un plan d'ensemble tendant à faire cadrer la capacité de production et les niveaux de vie". Ce sujet aurait déjà mérité d'être pris en considération en 1928, alors que tous les pays industriels du monde étaient relativement prospères. Mais la préoccupation qui a donné au thème du Congrès son caractère d'urgence est avant tout l'extension du chômage. C'est pourquoi il sembla judicieux de présenter les faits qui s'y rapportent dès l'ouverture du Congrès. De plus, il sembla également opportun de considérer le chômage comme un des premiers éléments des niveaux de vie dont il faudrait tenir compte si l'on acceptait comme objectif de l'aménagement économique et social l'ajustement de la capacité de production et des niveaux

¹ Ces deux rapports, ainsi que les principaux points de leur discussion, sont publiés dans le volume sur l'Aménagement économique et social, qui contient les rapports de la discussion présentés au Congrès, laissant au présent volume les études particulières qui avaient déjà paru auparavant.

INTRODUCTION ET RÉSUMÉ

de vie. En d'autres termes, si les profondes dépressions industrielles, avec le chômage qui les accompagne, sont en elles-mêmes un désastre, leur retour fréquent ajoute à l'étendue du désastre et constitue un facteur de déséquilibre d'une nouvelle sorte entre la production et la consommation. Supposons que les progrès industriels comportent une lente élévation des niveaux de vie et que ceux-ci atteignent un palier stable jusqu'à ce qu'une nouvelle augmentation soit rendue possible par les progrès de la production: le niveau atteint, fût-il insuffisant, offrirait du moins une sécurité permettant de vivre sans appréhension pour l'avenir. Par contre, si le niveau de vie atteint en temps de prospérité est presque certainement destiné à être abaissé, et si chaque ouvrier craint de se trouver parmi les premiers à être privés de leur travail et de leur salaire, la vie revêt un tel caractère d'incertitude qu'il devient difficile d'envisager une activité créatrice vraiment saine, aussi bien pour la collectivité dans son ensemble que pour les individus qui la composent. La crainte du retour du chômage devient alors une question plus importante même que son extension; c'est pour cette raison que des efforts ont été faits en vue de dresser des tableaux figuratifs des fluctuations de l'emploi de la main d'oeuvre et du chômage pour les deux décades qui s'étendent de 1910 à 1930, pour autant du moins que les statistiques utilisables le permettaient.

Le problème du chômage est d'autre part un problème d'action. Pour ce Congrès International, c'était une question capitale de savoir si cette action devait être exclusivement nationale ou si le chômage était devenu, lui aussi, un problème international. La réponse à cette question fut cherchée dans deux directions: 1°) dans la comparaison des dates et de l'intensité des entrées en chômage dans les différents pays considérés, afin d'étudier le synchronisme de ces éléments; 2°) dans l'analyse des circonstances affectant l'essor ou la dépression comme les analystes en pourraient découvrir dans les études propres à leur pays.

INTRODUCTION ET RÉSUMÉ

Dans l'ensemble, l'examen des tableaux montre: 1°) que l'emploi de la main d'oeuvre augmenta pendant la période qui précéda immédiatement la guerre; 2°) que le premier effet de ce choc fut l'apparition du chômage en 1914, non seulement dans les pays directement intéressés, mais également aux États-Unis et au Canada; 3°) qu'une période d'essor passagère suivit la guerre, mais que les années 1921-22 furent marquées par une dépression; 4°) que la période actuelle, commençant en 1930 correspond au point le plus bas pour l'emploi de la main d'oeuvre et les salaires, du moins pendant la série d'années où des statistiques comparables existent. A l'époque où les études en question ont été faites, l'étendue du chômage était assez faible en France; celui-ci paraissait cependant s'accroître, ce qui fut interprété comme un signe de perturbation probable dans l'économie française.

La seule exception fut l'Union des Républiques Socialistes soviétiques dans laquelle la dernière période considérée n'est pas marquée par le chômage, mais par une diminution de la durée du travail. La documentation d'avant-guerre sur la Russie est insuffisante pour permettre des comparaisons internationales: après la guerre, avec le nouveau régime, la courbe de l'emploi de la main d'oeuvre a suivi, somme toute, une tendance propre, ne montrant pas avec les courbes de l'Allemagne, de la Grande Bretagne et des États-Unis un synchronisme aussi grand que ces dernières entre elles. Bien que la valeur des exportations russes ait été évidemment affectée par la chute des prix de gros des matières premières et des produits alimentaires, il est certain que l'économie russe présente un caractère très spécial: celui d'une balance favorable croissante (de la "demande effective" des consommateurs (pour employer une expression ancienne) par rapport à la productivité du pays. De plus, c'est le seul pays dans lequel les salaires ont augmenté d'un pourcentage légèrement supérieur à celui de la productivité durant cette période de développement technique de l'industrie.

INTRODUCTION ET RÉSUMÉ

Dans des conditions toutes différentes, la Chine présente également une tendance propre, parce que son organisation industrielle en est à un stade bien différent de celui du monde occidental. Des statistiques comparables manquent, mais l'analyse des problèmes de l'industrie chinoise fait apparaître pour cette nation, l'importance d'une politique de coopération économique internationale. Il est intéressant de noter que la Russie n'est pas la seule à se donner comme but immédiat l'industrialisation: l'auteur du rapport sur la Chine déclare que, pour élever les niveaux de vie dans ce pays, l'industrialisation est essentielle. L'analyse des problèmes industriels chinois montre également que la politique des nations occidentales - qui s'affirme dans le problème bien connu de l'extraterritorialité - complique sérieusement les efforts de la Chine pour développer son industrie sous son propre contrôle social et dans un but de bien-être national. D'autre part, la propriété et le contrôle des industries chinoises sont souvent aux mains d'étrangers et ce fait constitue une complication supplémentaire, la Chine craignant en effet que l'aménagement économique ne soit qu'un autre nom pour désigner l'exploitation du pays par les nations mieux organisées industriellement.

Abandonnant momentanément le point de vue international pour considérer l'emploi au point de vue individuel, c'est-à-dire dans le cadre de l'usine, il est intéressant d'examiner les graphiques du mouvement de la main d'oeuvre présentés dans le rapport sur les États-Unis. L'ouvrier chômeur vient toujours d'une usine particulière, et c'est dans l'entreprise individuelle que prennent naissance les effets humains de ces profondes fluctuations de la production et du commerce. Sur les graphiques préparés pour les États-Unis, figurent les courbes d'embauche et de départ d'ouvriers dans un certain nombre d'usines, ces courbes étant elles-mêmes comparées avec les fluctuations générales de l'emploi de la main d'oeuvre. Un graphique similaire, établi pour les mêmes usines et la même

INTRODUCTION ET RÉSUMÉ

période, montre les fluctuations des "départs volontaires" et des renvois. Ces graphiques présentent un tableau très net de la relation existant entre la marche des événements dans l'entreprise individuelle et les tendances plus générales qui se manifestent dans l'organisme économique national et international dont cette entreprise fait partie. Or, notre Association s'occupe d'étudier et de promouvoir des relations humaines satisfaisantes dans l'industrie; dans le passé, elle a concentré principalement son attention sur les rapports existant entre patrons et ouvriers dans l'entreprise individuelle. On peut donc dire que les graphiques dont nous venons de parler constituent une figuration des raisons pour lesquelles elle doit maintenant se tourner vers le problème plus ample d'un aménagement économique et social applicable non seulement aux entreprises individuelles, mais aux diverses branches d'industrie, aux nations elles-mêmes, et finalement au monde entier.

L'activité de l'I. R. I. remonte à des conférences dont le début date de 1922. Les études sur les fluctuations dans l'emploi de la main d'oeuvre pendant les années cruciales de la guerre et jusqu'à l'époque actuelle embrassent donc la période de détresse qui a provoqué la création de l'I. R. I. Elles constituent ce qu'on pourrait appeler un indice de l'ambiance dans laquelle, au cours de la dernière décade, directeurs d'entreprises, représentants de la main d'oeuvre, chefs de personnel, ingénieurs et économistes adhérant à l'Association ont dû s'acquitter de leur tâche.

Aussi bien, sous le rapport de l'aménagement économique et social, ces études présentent-elles un autre intérêt encore. Un élément essentiel des enquêtes relatives à cet aménagement devra prendre en effet la forme d'études ultérieures beaucoup plus détaillées portant sur les tendances de l'emploi de la main d'oeuvre nombre d'industries différentes et ayant trait aux relations mutuelles qui existent entre ces tendances. Or, les études dont nous parlons constitueront un excellent cri-

INTRODUCTION ET RÉSUMÉ

terium pour juger de la valeur de ces recherches plus approfondies. Les statistiques d'emploi de la main d'oeuvre et des gains ouvriers constituent pour ainsi dire l'échelle où se lit le degré d'équilibre existant entre la production et la capacité d'achat; comme d'autre part, pour établir des projets applicables à un avenir immédiat, les auteurs de programmes d'aménagement doivent prendre pour matériaux les tendances d'un passé récent, les fluctuations enregistrées sur le moment même par ces statistiques peuvent donc constituer un signal d'alarme indiquant aux guetteurs que l'équilibre est en train de se rompre.

Si de telles comparaisons statistiques deviennent possibles, et elles sont extrêmement importantes comme données fournissant une base de coopération économique internationale, des efforts vers une plus grande uniformité doivent être faits. Il ressort clairement de ces essais pour recueillir des chiffres comparables que la mesure du chômage est une tâche difficile, même à l'intérieur d'un pays donné, et devient une entreprise presque impossible à l'échelle internationale. La raison en est évidemment que la définition même du chômage est difficile et que, en supposant cette définition établie, il resterait dispendieux et difficile de dénombrer les individus compris dans cette définition. Les renseignements relatifs au chômage qui sont présentés pour la Grande-Bretagne et pour l'Allemagne ont comme source l'administration de l'Assurance-chômage. Ces chiffres ne seraient comparables entre eux que si les législations des deux pays étaient absolument identiques et appliquées de la même façon. Cela est évidemment impossible. Il reste légitime, néanmoins, de prendre les statistiques de chaque pays telles qu'elles se présentent, et d'en mesurer les variations relatives.

Cette connection entre les mesures du chômage et les opérations administratives est bien illustrée par l'insuffisance des renseignements relatifs aux Etats-Unis. Cette insuffisance

INTRODUCTION ET RÉSUMÉ

n'est nullement le fait d'une indifférence à l'égard des statistiques, mais résulte de ce que les Etats-Unis n'ont pas adopté l'assurance-chômage. Ils possèdent néanmoins un précieux système de rapports mensuels concernant le nombre d'inscrits sur les feuilles de paie et le montant total des salaires payés. A l'examen des analyses présentées au Congrès, on est tenté de conclure que les comparaisons internationales seraient grandement facilitées par l'enregistrement mensuel - ou à intervalles plus courts - du nombre d'ouvriers occupés et du montant total des salaires dans des établissements représentatifs d'industries choisies comme types. De telles mesures sont faciles à réaliser et n'offrent pas de difficulté de définition. Elles sont gênées, il est vrai, par la difficulté que présente la classification des industries lorsque l'on considère différents pays. Sur ce sujet, aussi bien que, en général, pour l'uniformisation des statistiques de l'emploi et du chômage, le Bureau International du Travail s'est mis au travail depuis plusieurs années et ses efforts sont assurés de l'appui le plus large des milieux industriels et des gouvernements des différentes nations.

Enfin, il est bon de porter son attention sur les conditions générales au milieu desquelles apparut le chômage dans les différents pays considérés, notamment en ce qui concerne son aspect international. Le Dr. Lazard, dans sa conclusion, montra qu'il ne pouvait s'agir, dans la situation présente, d'étudier le chômage isolément, mais qu'il fallait prendre en considération la crise économique générale. Dans toute période de chômage, il faut examiner, en effet, les conditions générales 1) du marché du travail; 2) du marché des marchandises; 3) du marché monétaire. Dans la situation actuelle, le Dr. Lazard montra que les éléments essentiels à retenir étaient le marché des marchandises et le marché monétaire. De plus, la situation, sous chacun de ces trois aspects, se trouvait singulièrement compliquée par les événements de la politique

INTRODUCTION ET RÉSUMÉ

internationale qui, sans être d'essence économique, ont eu des répercussions économiques considérables. Le nationalisme, stimulé par la crainte de l'insécurité, crée une atmosphère dans laquelle les éléments essentiels de la coopération économique, au moment où celle-ci constitue un besoin urgent, empêchent la restauration de l'équilibre de la production.

Telles sont les bases objectives de discussion qui ressortent des études particulières servant d'introduction à l'aménagement économique et social."

INTERNATIONALE ARBEITSLOSIGKEIT - UNTERSUCHUNG ÜBER SCHWANKUNGEN IN DER BESCHÄFTIGUNG UND ARBEITSLOSIGKEIT IN VERSCHIEDENEN LÄNDERN, 1910-1930 - EINFÜHRUNG AND ZUSAMMENFASSUNG VON MARY VAN KLEECK, LEITERIN DER ABTEILUNG FÜR INDUSTRIELLE STUDIEN AN DER RUSSELL SAGE FOUNDATION, NEW YORK, UND VIZE-PRÄSIDENTIN DER I.R.I.

EINFÜHRUNG.

Die hier dargebotenen Analysen über Schwankungen in der Beschäftigung sollen ein Bild geben von der Wiederkehr der Arbeitslosigkeit in den verschiedenen Teilen der Welt während der zwei Dekaden an deren Ende die gegenwärtige, weltweite Wirtschaftsdepression steht. In zweierlei Bedeutung tragen diese Studien einführenden Charakter.

(1) Sie sollten einmal Ausgangspunkt geben für eine Diskussion der internationalen Gesichtspunkte der Arbeitslosigkeit auf dem Weltkongress über sozial-ökonomische Planung.

(2) Sie wurden ausserdem in der Hoffnung geplant, dass sie weitere Untersuchungen anregen möchten, die mehr Länder umfassen und die in diesen Ländern verfügbaren Angaben mehr ins Einzelne gehend zu analysieren.

Arbeitslosigkeit ist mehr ein Sympton als eine bestimmte Wesenheit, die in unveränderter Form wiederkehrt. Gerade das Gegenteil ist richtig; in den verschiedenen Ländern der Welt hat jede Periode der Arbeitslosigkeit verschiedene Gesichtspunkte dargeboten und der Mangel an wirtschaftlicher Anpassung, den diese wechselnden Gesichtspunkte widerspiegeln, ist relativ nicht immer von gleicher Wichtigkeit, und verursacht im ganzen in jeder wiederkehrenden Depression eine Reihe von Umständen.

In Verbindung mit anderen Elementen, auf die sich der Konjunkturcyclus gründet, ist die Schwankung in der Beschäftigung ein Gegenstand schnell zunehmenden Interesses für Wirtschaftswissenschaftler, besonders der Vereinigten Staaten, Deutschlands und Grossbritanniens geworden. Da die

EINFÜHRUNG UND ZUSAMMENFASSUNG

Gründe zu diesen Veränderungen einen ausweichenden und veränderlichen Charakter tragen, sind sie ein Lockmittel zu weiterer wissenschaftlicher Arbeit geworden; gleichzeitig ist ihr Charakter für diejenigen, zu einer Entmutigung geworden, die gehaft hatten, dass Kontrolle der Konjunkturen durch Wirtschaft und Staat möglich sein würde.

Hier ist nicht der Platz, um auch nur einen flüchtigen Hinweis auf die Ergebnisse dieser Studien über Veränderungen im Wirtschaftsleben zu machen, mit all ihren fesselnden Problemen in Bezug auf die Technik der Voraussage und des Suchens nach Gründen, für welche die statistischen Data eine Vorbedingung sind. In Bezug auf den Internationalen Kongress, der in der Arbeitslosigkeit seinen Ausgangspunkt betrachtet, genügt die Bemerkung, dass Oekonomen, die sich mit der Erforschung der Wirtschaftskonjunkturen befassen, den Punkt erreicht haben, wo die Wichtigkeit von Beschäftigung und Arbeitslosigkeit in wachsendem Masse erkannt ist. Ferner wurde auch angeregt, diesen Gegenstand nicht länger in den verschiedenen Ländern gesondert zu betrachten, sondern vergleichbare Analysen zu machen, die den Grad anzeigen, bis zu dem internationale Handelsbeziehungen die Nationalen Schwankungen beeinflussen.

Zum Beispiel hat Professor Dr. Ernst Wagemann, Berlin,¹ Präsident des Deutschen Statistischen Reichsamts und Direktor des Deutschen Instituts für Konjunkturforschung, in seinem neuesten Buch "Konjunkturlehre" - in einer englischen Ausgabe unter dem Titel "Economic Rhythm" übersetzt - gesagt:

"Wenn also auch die Schwankungen des Beschäftigungsgrades und der damit verbundenen Einkommensausfälle gegenüber der Gesamtheit der volkswirtschaftlichen Wertschöpfungen verhältnismässig gering sind, so drückt sich doch die Arbeitslosigkeit in den absoluten Zahlen, die zeitweise auf Hunderttausende, ja auf Millionen von Arbeitslosen anschwellen, ausserordentlich hart aus. Als eine der vornehmsten Aufgaben der Wirtschaftspolitik erscheint daher die Beseitigung solcher Schwankungen."²

¹ Dr. Wagemann ist ausserdem Professor an der Berliner Universität, Ehrenmitglied der Königlichen Statistischen Gesellschaft und Ehrenmitglied des Internationalen Statistischen Instituts.

² Wagemann, Ernst, "Konjunkturlehre", Verlag Reimar Hobbing, Berlin.

EINFÜHRUNG UND ZUSAMMENFASSUNG

Als Präsident Hoover als Handelssekretär der Vereinigten Staaten im Jahre 1921 den Ausschuss für Arbeitslosigkeit und Wirtschaftskonjunkturen unter dem Vorsitz von Mr. Owen D. Young, Chairman of the Board of the General Electric Company, berief, erkannte er, wie wichtig die Arbeitslosigkeit als Gesichtspunkt des Studiums der Konjunkturen war. Um den Bericht des Komitees zu ergänzen, schrieb Mr. Hoover im Jahre 1923:

Das ganze Problem gehört zu der grossen Klasse der Ausgaben, denen wir als Nation in der Vermeidung von Verschwendung entgegenzutreten, wenn wir unseren höheren Lebensstandard erhalten und steigern wollen. Keine Verschwendung ist grösser als Arbeitslosigkeit, kein Leiden ist tiefer und verzweifelter als der Druck, der auf denen liegt, die trotz ihres Wunsches keine Arbeit finden können.³

Fluktuation in der Beschäftigung ist nicht nur ein an sich wichtiges Thema, sondern auch ein Masstab für die allgemeine wirtschaftliche Lage. In seinem bereits erwähnten Buche sagt Professor Wagemann:⁴

"Wenn wir als wichtigsten Gegenstand der Konjunkturbeobachtung den Beschäftigungsgrad ansehen, so geschieht es namentlich deswegen, weil wir darin den besten Gesamtausdruck für den Gang der volkswirtschaftlichen Konjunkturen erblicken, soweit die gegenwärtigen deutschen Verhältnisse in Betracht kommen."

Studien über Arbeitslosigkeit sind bisher besonders vom nationalen Gesichtspunkt aus erfolgt, aber die Wirtschaftswissenschaft hat bereits die Notwendigkeit internationaler Studien

Kapitel XXII, Konjunkturstabilisierung und konjunkturlose Wirtschaft, S. 200. - "Economic Rhythm", McGraw-Hill Book Publishing Company, Inc. New York, 1930, Chapter XXII, Stabilization of Business and Elimination of Its Cycles, p. 230.

³ "United States Department of Commerce", "Wirtschaftskonjunkturen und Arbeitslosigkeit". Bericht und Empfehlungsschreiben eines Komitees der Präsidenten-Konferenz über Arbeitslosigkeit. (Owen D. Young, Vorsitzender, Clarence M. Woolley, Joseph H. Defrees, Matthew Woll, Mary van Kleeck, Edward Eyre Hung, Sekretär), mit einem Vorwort von Mr. Hoover, Washington, Government Printing Office, 1923, p. VI.

⁴ Op. cit. Kapitel XXI, "Der Beschäftigungsgrad als Gesamtausdruck der Konjunktur", Seite 193, p. 222. Diese Aufstellung über Deutschland könnte auch als für andere Länder massgebend von denen bestätigt werden, die sich mit dem Studium der Wirtschaftskonjunkturen befassen.

EINFÜHRUNG UND ZUSAMMENFASSUNG

erkannt. Zum Beispiel sagt einer der Pioniere in der Konjunkturforschung, Dr. Wesley C. Mitchell von der Columbia Universität in seinem letzten Buch: "Konjunkturen, das Problem und seine Lösung" (Business Cycles - The Problem and Its Setting):

Die wachsende Uebereinstimmung mit einem internationalen Muster, die die Jahresangaben (der Konjunkturen) der letzten Jahre offenbaren, zeigt, dass die internationalen Einflüsse an relativer Bedeutung gewinnen.⁵

Diese hier erwähnten Studien und andere, die unsere Aufmerksamkeit fanden, haben sich bisher weder in erster Linie mit Beschäftigung und Arbeitslosigkeit befasst, noch Angaben für verschiedene Länder gemacht oder internationale Vergleiche gewagt. Auf der Suche nach Informationen, die für den Dreijahreskongress benötigt wurden, konferierten Vorstandsmitglieder der "Internationalen Vereinigung für Bestgestaltung der Arbeit in Betrieben" mit Mitgliedern des Stabes des Internationalen Arbeitsamtes und der Wirtschafts-Abteilung des Völkerbundes. Dieses war im September 1930. Die Wirtschafts-Abteilung des Völkerbundes hat bisher Beschäftigung und Arbeitsbedingungen nicht in seinen Gesichtskreis bezogen, da dieses Gegenstände sind, die zum Wirkungskreis der Internationalen Arbeitsorganisation gehören. Auf der Vollversammlung des Völkerbundes in der Sitzung 1930 wurde in Anregung gebracht, dass er sich mit allgemeinen Wirtschaftsfragen, wie Goldzufuhr und Weltwirtschaftsdepression, beschäftigen solle, und dieses hat natürlich einen direkten Einfluss auf die Bedingungen des Wirtschaftslebens, aus denen Arbeitslosigkeit entsteht. Trotzdem waren keine Statistiken, die wir über Schwankungen in der Beschäftigung suchten, verfügbar.

Das Internationale Arbeitsamt hat eine Abteilung, in der

⁵ Mitchell, Wesley C., Business Cycles - The Problem and Its Setting. National Bureau of Economic Research, New York, 1930. - ("Konjunkturen - Das Problem und seine Lösung". Nationalbüro für Wirtschaftsforschungen, New York, 1930. Seite 450.)

EINFÜHRUNG UND ZUSAMMENFASSUNG

man angefangen hat, sich mit dem Studium über Arbeitslosigkeit und Auswanderung zu beschäftigen, und wo man durch einen Bericht vom Jahre 1929 über "Arbeitslosigkeit, einige internationale Gesichtspunkte, 1920-1928" neue Gesichtspunkte in die Sache brachte.⁶ Besonders erstreckte sich dieser Bericht erstens auf den Einfluss der Währungsschwankungen, zweitens auf die Arbeitslosigkeit in zwei Industrien: Bergbau und Textilien, und drittens auf Arbeitslosigkeit und Auswanderung. Zu gleicher Zeit arbeitete das Amt an einem Bericht über öffentliche Notstands-Arbeiten und an einer vergleichenden Studie über öffentliche Arbeitsvermittlung, welche einer ähnlichen Studie über Arbeitslosenversicherung folgte.

In der Statistischen Abteilung des Internationalen Arbeitsamtes waren keine Studien, die in der gleichen Richtung mit dem I. R. I. Programm gingen, in Vorbereitung, obgleich die "Internationale Rundschau der Arbeit" Zahlen veröffentlichte, die seit 1928 jährlich die Veränderungen in Beschäftigung und Löhnen in verschiedenen Ländern zeigten. Darüber hinaus waren für den Kongress auch bestimmte Spezialstudien von Interesse, wie z.B. ein neuerer Bericht über Bergbau, der die Differenzen in Löhnen und der Lebenshaltung der Bergarbeiter verschiedener Länder darlegte; ferner ein Bericht, der noch nicht erschienen war, als dies geschrieben wurde, über die Lebenshaltung in den Städten, in denen Ford-Fabriken sind, und die durch den "Twentieth Century Fund" (Vereinigte Staaten) finanziert sind, um Unterlagen für die von Mr. Ford angekündigte Politik zu liefern, in europäischen Ländern, Löhne zu zahlen, die eine Lebenshaltung gestatten sollen, welche derjenigen der Ford'schen Arbeiter in Detroit gleichkommt. Abgesehen von diesen Angaben waren keine Jahresberichte über Schwankungen in der Beschäftigung in den verschiedenen Ländern, nach denen wir

⁶ Internationales Arbeitsamt, "Arbeitslosigkeit - einige internationale Gesichtspunkte, 1920-1928". Ein Bericht zur 12. Sitzung der Internationalen Arbeiterkonferenz, Mai-Juni 1929, in "Studien und Berichten" Serie C (Beschäftigung und Arbeitslosigkeit) No. 13.

EINFÜHRUNG UND ZUSAMMENFASSUNG

suchten, in Genf vorhanden, obwohl das Internationale Arbeitsamt den Wissenschaftlern, die diese Arbeit unternahmen, weitgehend Mitarbeit anbot und entsprechend leistete.

Es waren deshalb besondere Studien nötig, wenn hinreichendes Material als Ausgangspunkt für Diskussionen auf dem Kongress zur Verfügung stehen sollte. Da wir uns nicht nur mit der jetzigen Lage zu befassen hatten, oder vielmehr, da wir so sehr mit dem jetzigen ernstesten Problem der Arbeitslosigkeit beschäftigt waren, glaubten wir unsere Aufmerksamkeit nicht auf diese Periode beschränken zu dürfen, sondern soweit als möglich ein statistisches Bild gewinnen zu sollen, das einen Masstab für Beschäftigung und Arbeitslosigkeit zweier Dekaden geben könnte. Ohne diese Rückschau schien es unmöglich, die Verhältnisse der Gegenwart richtig zu bewerten.

Die Internationale Vereinigung für Bestgestaltung der Arbeit in Betrieben ist selbst kein Forschungsinstitut. Sie beschränkt ihre Aufgabe auf die Organisation von Kongressen und Konferenzen. Aber als Teil dieser Aufgabe hat sie die Möglichkeit, Untersuchungen anzuregen, die sich auf die Gegenstände ihres Programms beziehen. In dieser Hinsicht wurden Nationalökonomien in den verschiedenen Ländern zur Mitarbeit gewonnen, und zwar unter anderen: Dr. F. C. Benham von der Londoner Schule für Volkswirtschafts- und Staatslehre, früher Lektor an der Universität Sydney, Australien, der die Berichte über Grossbritannien, Frankreich und Australien ausarbeitete. Dr. W. A. Berridge, Volkswirtschaftler der Metropolitan Lebensversicherungsgesellschaft, U. S. A., Mitglied des Komitees für Staatliche Arbeitsstatistik der "Amerikanischen Statistischen Gesellschaft" (zu deren Arbeit auch die Erweiterung und Normung der Statistiken über Beschäftigung und Arbeitslosigkeit in den Vereinigten Staaten und Kanada gehören), Dr. Berridge arbeitete die Berichte über die Vereinigten Staaten und Kanada aus; Dr. Robert Wilbrandt, früher an der Universität Tübingen und heute Professor an der Technischen Hoch-

EINFÜHRUNG UND ZUSAMMENFASSUNG

schule in Dresden machte den Bericht über Deutschland; Mr. K. L. Tao und Mr. S. H. Lin vom Institut für Soziale Forschung in Peiping, begannen eine gleiche Studienarbeit in China; Dr. Susan M. Kingsbury and Dr. Mildred Fairchild vom Bryn Mawr College, U. S. A. stellten eine ursprüngliche Analyse der verfügbaren Statistiken über Russland vor dem Kriege auf und anschließend den Trend der Beschäftigung in den U. S. S. R.; dieser ausführliche Bericht enthält Angaben, die bis jetzt noch nicht einmal von den Statistikern der Sowiet Union untersucht wurden. Diese eben erwähnten Nationalökonominnen wurden durch andere unterstützt, deren Mitarbeit auf ihren und des Programm-Komitees Wunsch an dieser Stelle anerkannt wird:

Mr. S. Brand, B.Com arbeitete mit Dr. Benham zusammen; Mr. Cedric Wolf half Dr. Berridge bei dem Bericht über die Vereinigten Staaten und Mr. F. W. McComas Jr. bei dem Bericht über Kanada; Dr. Gerhard Isenberg arbeitete mit Dr. Wilbrandt zusammen. Von den Studenten des Bryn Mawr College, die Dr. Kingsbury und Dr. Fairchild unterstützten, muss Frau M. Andrée Miskolczy aus Budapest genannt werden, und für die Uebersetzung aus dem Russischen muss Miss May Rollins Smitt Anerkennung gezollt werden. Letztere stammt aus Riga, wurde dort erzogen und hörte an der Universität Petrograd und später in der Sorbonne Vorlesungen über Fremdsprachen.

Diese Studien wurden durch Geldmittel ermöglicht, die der Internationalen Vereinigung für Bestgestaltung der Arbeit in Betrieben durch das Budget der Abteilung für Wirtschaftswissenschaftliche Studien (Department of Industrial Studies) von der Russell Sage Foundation übereignet waren. Obgleich die Gründungsurkunde der Foundation ihr Werk auf die Vereinigten Staaten beschränkt, hat die Abteilung für wirtschaftswissenschaftliche Studien die Unterstützung des Komitees für Staatliche Arbeitsstatistik der „American Statistical Association“ in ihr Programm eingeschlossen, da sie es sich zur Aufgabe ge-

EINFÜHRUNG UND ZUSAMMENFASSUNG

macht hat, die staatliche Arbeitsstatistik in den Vereinigten Staaten zu verbessern. Kanada ist in diesem Komitee ebenfalls vertreten, und natürlich ist in den Vereinigten Staaten, wie in jedem anderen Lande, die Vergleichbarkeit der Statistiken mit anderen Nationen ein wichtiger Gesichtspunkt. Auf dieser Grundlage war es logisch, diese Studien für den Kongress zu unterstützen. Ausserdem hofften wir, dass daraus ein weiterer Antrieb zur internationalen Einheitlichkeit entspringen möchte. Diese Geldmittel wurden hauptsächlich verwandt, um Reise-spesen sowie statistische und Schreibearbeiten zu bezahlen; ausserdem erhielten einige der Nationalökonomten kleine Entschädigungen. Aber grösstenteils war ihr Werk ein freiwilliger Beitrag zum Kongress, für das wir ihnen und ihren Organisationen zu Dank verpflichtet sind.

Wir hatten zuerst gehofft, dass bei der Ausarbeitung dieser Studien ein genügender Austausch stattfinden könnte, um einen Gesamtbericht zu ermöglichen. Die Kürze der Zeit hat dieses verhindert, und daher stellen diese Studien grösstenteils eine unabhängige Arbeit in den verschiedenen Ländern dar, ohne gemeinsame Ausdeutung oder ausführlichen Austausch der Anregungen hinsichtlich des eingeschlagenen Verfahrens.

Bevor diese Studien unternommen wurden und auch während ihrer Ausarbeitung stellte das Programmkomitee Richtlinien über Zweck und Ziel der Untersuchungen auf, um mehr oder weniger Vergleichbarkeit in das Endergebnis zu bringen. Die wichtigen Punkte in diesen Memoranden mögen wie folgt zusammengefasst werden:

Das damals formulierte Thema des Kongresses war: "Die Abhängigkeit befriedigender menschlicher Beziehungen in der Industrie von einer planmässigen Anpassung der weltwirtschaftlichen Produktionsmöglichkeiten an die menschlichen Lebensbedürfnisse". In dieser Problemstellung richtete die Vereinigung ihr besonderes Interesse auf die sozialen und menschlichen Gesichtspunkte, wie sie sich in der Unsicherheit der Beschäftigung und der Lebenshaltung widerspiegeln, die durchaus nicht im Verhältnis zu dem Fortschritt in der Produktionskapazität stehen. Es wurde daher geplant, in der ersten Sitzung des Kongresses die Tatsachen über die gegenwärtige wirtschaftliche Not darzulegen, nämlich: die Paradoxie wiederkehrenden Elends in einer Pe-

EINFÜHRUNG UND ZUSAMMENFASSUNG

riode wachsender Verwendungsmöglichkeiten der ökonomischen Hilfsmittel. Um die Behandlung dieses Themas vorzubereiten, wurden Nationalökonominnen um die Ausarbeitung von Berichten gebeten, die statistische Data liefern über Schwankungen in der Beschäftigung, ihre Zeiten und Intensitäten für die Zeit von 1910 bis 1930, und zwar für Länder, deren ökonomische Bedingungen verschiedenartige Typen und Grade von Mangel an wirtschaftlicher Anpassung illustrieren. Mit diesen Statistiken wurde zugleich - soweit es verfügbar sein sollte - statistisches und beschreibendes Material gewünscht über den Wechsel in Reallöhnen und Lebenshaltung dieser gleichen Länder während der zwanzigjährigen Periode. Als Grundlage sollten in breiten Umrissen die ökonomischen Hilfsquellen in der ganzen Welt und der Wechsel in der Produktionskapazität in den vergangenen 20 Jahren skizziert werden. Ein Teil dieses Materials erscheint zwar in getrennten Analysen der Länder, aber ihre Haupttrends werden in dem von Dr. Otto Neurath, Direktor des Gesellschafts- und Wirtschaftsmuseums in Wien, ausgearbeiteten Vortrag gezeigt.

Wir hatten darauf hingewiesen, dass die Untersuchungen scharf auf die Tatsache des Wechsels in Beschäftigung und Arbeitslosigkeit konzentriert werden sollten, d.h. mehr auf die Schwankungen, Daten und Intensitäten der Hoch- und Tiefpunkte, als auf das absolute Mass der Ausdehnung der Arbeitslosigkeit jeder Zeitperiode, was in vergleichbarer Form in den verschiedenen Ländern nicht zu bekommen wäre. Weiter sollten die Studien Material beschaffen, auf das die Diskussionen in der ersten Sitzung fundiert werden könnten. Und als das Wichtigste von allem, sie waren so geplant, um die Möglichkeit intensiverer und extensiverer internationaler Studien über Schwankungen in der Arbeitslosigkeit zu schaffen.

Folgendes waren die Richtlinien für den von jedem Lande gewünschten Bericht:

1. Quellen der endgültig beschriebenen Data - die zeigen sollen, bei welcher Behörde oder bei welcher Organisation sie gesammelt sind; die exakte Form der Aufstellung, aus der die Data ursprünglich genommen worden sind. Ferner irgendwelche Bemerkungen über die Art der Sammlung, die den Zweck und die Verlässlichkeit der Informationen beleuchten könnten. (Dieses Material musste natürlich in einem Anhang niedergeschrieben werden und kann nur kurz veröffentlicht werden, aber es wird bei internationalen Vergleichen und bei der Planung künftiger Studien von Wert sein.)

2. Schwankungen in der Beschäftigung von 1910 bis 1930² auf jährlicher Basis (unter Ausmerzung jahreszeitlicher Fluktuationen) für das Land als Ganzes.

Da die wirtschaftliche Zusammensetzung dieser Länder so grosse Verschiedenheiten aufweist, soll die gesamte Trendlinie auf irgendeinem verfügbaren Index aufgebaut werden und muss dann für den Bericht über jedes einzelne Land massgebend sein. Ihre Zusammensetzung muss natür-

² In einigen Ländern wird es unmöglich sein, eine ununterbrochene Zahlenreihe für diese 20 Jahre zu gewinnen. Der Zeitraum dieser 20 Jahre ist als allgemeine Richtlinie gegeben, innerhalb derer gearbeitet werden sollte.

EINFÜHRUNG UND ZUSAMMENFASSUNG

lich beschrieben werden, es wird jedoch nicht erwartet, dass die Zusammensetzung in zwei beliebigen Ländern ähnlich ist.

3. Eine ähnliche Zahlenreihe für die ganze Zeit (time series) über Arbeitslosigkeit, wo diese zur Verfügung steht.

4. Eine gesonderte Zahlenreihe für die gleiche Zeit über Schwankungen in der Beschäftigung und Arbeitslosigkeit in besonderen Industrien. Vor allem wurden diese besonderen Analysen möglichst gewünscht a) für Kohlenproduktion; b) Stahlindustrie; c) Eisenbahntransportwesen; d) Schifffahrt; e) Metall- und Maschinenindustrie; f) Textilien; g) Baugewerbe.

Natürlich konnten diese Industrien nicht alle berücksichtigt werden, aber es wird erwartet, dass in der Liste die Industrien aufgeführt werden, in denen internationale Vergleiche von besonderer Bedeutung zu sein scheinen, und die geeignet sind, um Veränderungen in der Beschäftigung eines Landes zu enthüllen.

5. Vergleichbare Data über Trends in Produktion und Menschenarbeit, besonders in den Industrien, in denen technologische Veränderungen in den vergangenen 20 Jahren eingetreten sind.

6. Erklärungen über charakteristische Merkmale in der Arbeitslosigkeit 1930 im Vergleich mit früheren Tiefpunkten in der Beschäftigung (oder Höhepunkten in der Arbeitslosigkeit) während dieser zwanzig Jahre.

Wir nehmen an, dass in diesen 20 Jahren zu verschiedenen Zeiten Studien über die Ursache der Arbeitslosigkeit gemacht sein könnten. Wertvoll werden kurze Zusammenfassungen und Anmerkungen sein, die geeignet sind, Fragen aufzuwerfen und Entschliessungen anzuregen in Bezug auf die Bedeutung der gegenwärtigen Arbeitslosigkeit und besonders der neuen Faktoren und der internationalen Gesichtspunkte, die nun hinzukommen.

7. Löhne und Lebenshaltung. In einigen Ländern, (z.B. U.S.A.) stehen Indices über Einkommen, die gleichzeitig mit den Indices über Beschäftigung gesammelt worden sind, zur Verfügung. Sehr wünschenswert wäre es, wenn diese beiden Arten von Statistik nach Möglichkeit mit denen über Beschäftigung und Arbeitslosigkeit zusammengefasst würden. Aber es mag ernste Schwierigkeiten in der Sammlung dieses Materials geben, und es wird natürlich nicht gewünscht, dass zuviel Zeit und Kraft darauf verwandt wird.

In diesen Vorbereitungsarbeiten müssen Ausführungen über die Lebenshaltung und ihre Veränderungen - da dieses natürlich ein sehr wichtiger Gegenstand ist - gemacht werden, können aber wahrscheinlich nur auf besonders deutliche Veränderungen beschränkt werden. Wenn Ausführungen dieser Art gemacht sind, so sollen sie nach Möglichkeit auf die beiden Perioden, die zum Vergleich ausgesucht sind (1930 und eine frühere Periode) beschränkt bleiben.

Da man erkannte, dass in Bezug auf die Data keine Vergleichbarkeit vorhanden war, gab man den Forschern in einem Memorandum folgende Anregungen:

Da die verfügbaren Data natürlich sehr stark verschieden sein werden, - angefangen beim reichlichen Material Grossbritanniens bis zum Fehlen

EINFÜHRUNG UND ZUSAMMENFASSUNG

jeden statistischen Materials in China -, und da in verschiedenen Ländern wie Grossbritannien oder Deutschland, Informationen, die bei den Aemtern der Arbeitslosenversicherung eingezogen sind, Masszahlen über Arbeitslosigkeit ermöglichen, während wir uns in den Vereinigten Staaten und Kanada vollständig auf Informationen an Hand von Kurven über Beschäftigung verlassen müssen, wäre es wünschenswert wegen dieses Mangels an Vergleichbarkeit die Aufmerksamkeit auf die Zeiten und Intensitäten des Wechsels zu konzentrieren, wie er sich in den Kurven über Beschäftigung widerspiegelt, ferner Data über Arbeitslosigkeit und andere statistischen Masszahlen über Veränderungen im Wirtschaftsleben zu gebrauchen, um die Bedingungen für Krisen in jenen Ländern, in denen ausgedehnteres Angabenmaterial zur Hand ist, zu erläutern.

Die zu prüfenden Quellen würden folgende sein:

1. Statistiken über Zahlen auf den Lohnlisten und über das Gesamteinkommen, die besonders monatlich zur Verfügung stehen, aber auf jährliche Zahlenangaben zurückgeführt werden sollen.
2. Statistiken über Arbeitslosigkeit, die mehr gebraucht werden, um die Zeiten und Intensitäten der Veränderungen festzustellen, als um eine absolute Information über die Ausdehnung zu geben.
3. Statistiken von öffentlichen Arbeitsämtern.
Nach Feststellung der Data über den Wechsel in verschiedenen Ländern, sollte man sich nach Möglichkeit auf bestimmte dieser Angaben konzentrieren und die Ursachen der Veränderungen während diesen Zeiten intensiver studieren und ebenso die statistischen Masszahlen für Produktion, Wirtschaftsbedingungen und andere ähnliche Angaben, die beim Studium der Konjunkturen beobachtet worden sind. Für die gleichen Perioden soll beschreibendes und statistisches Material gebracht werden, das Veränderungen in den Reallöhnen und in der Lebenshaltung zeigt.

Bei der Auswahl der Länder liessen wir uns teils durch ihre Forscher, die bereits an einem ähnlichen Thema arbeiten, bestimmen, teils durch den anschaulichen Charakter dieser Länder und die ausserordentliche Wichtigkeit ihres gegenwärtigen Zustandes in der Weltwirtschaft. Nichtsdestoweniger beabsichtigten wir nicht, auf dem Kongress das Material in Form eines nationalen Problems eines jeden Landes zu unterbreiten, sondern es sollte vielmehr 1. Gegenden mit einem Ueberschuss an Hilfsquellen und Produktion; 2. Gegenden mit unvollständigen Hilfsquellen und beschränkten Märkten und 3. Gegenden, die erst neuerdings in die Industrialisierung eintraten als Anschauungsmaterial dienen.

Im Namen der Oekonomen, deren Berichte hier präsentiert

EINFÜHRUNG UND ZUSAMMENFASSUNG

werden, soll betont werden, dass ihr Werk nicht nur in Zeit und Hilfsquellen beschränkt war, sondern dass ihnen auch eine räumliche Beschränkung auferlegt war. Sie waren gebeten worden, den Bericht über jedes Land auf 30 Schreibmaschinen-seiten oder annähernd 10.000 Worte zu beschränken. Ferner baten wir um eine weitere Zusammendrängung auf ca. 800 Worte für jedes Land in Form einer Zusammenfassung (Synopsis) und schlugen vor, für jeden Bericht eine Ergänzung auszuarbeiten, die über den Zweck der Data Aufschluss geben sollte, und wichtiges statistisches Material, das nicht in den beschränkten Raum hineingebracht werden konnte, auf Ergänzungstafeln beizufügen. Diese Ergänzungsinformation ist zu weitläufig um hier veröffentlicht zu werden. Das hier gedruckte Material stellt demnach eine Auswahl von Data mit weiteren Gesichtspunkten dar, die jedoch die meisten hier gebotenen Schlussfolgerungen bestätigt.

ZUSAMMENFASSUNG.

In den vorhergehenden Ausführungen über Ziele und Aufgaben der Untersuchungen ist dargelegt worden, dass die Studien jeweils auf ein Land beschränkt wurden, dass jedoch in einige dieser nationalen Untersuchungen auch internationale Einflüsse einbezogen wurden. Innerhalb des Kongressprogrammes war Dr. Lazard, Paris, mit der Bearbeitung und zusammenfassenden Darstellung der verschiedenen Untersuchungen in einem Referat über „Die Arbeitslosigkeit als internationales Problem“ betraut worden. Mit diesem Vortrag wurde der Kongress eröffnet. In derselben Sitzung behandelte Dr. Otto Neurath, Wien, das Thema „Das augenblickliche Wachstum der Produktionskapazität der Welt“. Beide Vorträge ergänzten einander und bieten die Grundlage für eine Aussprache unter dem Gesichtspunkt „Arbeitslosigkeit in einer Zeit wirtschaftlichen Fortschrittes - eine Paradoxie“.¹

Es kann nicht Zweck dieser Einführung sein, das Material zu behandeln, das in den einzelnen wertvollen Untersuchungen

EINFÜHRUNG UND ZUSAMMENFASSUNG

zusammengetragen worden ist, oder die glänzende Interpretation von Dr. Lazard wiederzugeben, die der Leser als Ganzes zu studieren wünschen wird. Es erscheint jedoch zweckmässig, schon hier einige Gesichtspunkte aus Dr. Lazard's Vortrag hervorzuheben und darüber hinaus aufzuzeigen, welche Bedeutung diesen Berichten für die Frage der weltwirtschaftlichen Planung zukommt.

Das Thema des Kongresses - Sozialökonomische Planung - fand eine Erläuterung durch den Untertitel: „Die Notwendigkeit einer besseren Anpassung der Produktionskapazität an die Lebenshaltung“. Dieser Frage hätte schon im Jahre 1928 Aufmerksamkeit zugewandt werden müssen, als die wirtschaftliche Lage in den Industrieländern relativ günstig war. Jetzt ist die Behandlung dieses Problems infolge der Ausdehnung der Arbeitslosigkeit zur zwingenden Notwendigkeit geworden. Darum erschien es geboten, bei Eröffnung des Kongresses von diesen Tatsachen auszugehen. Wichtig war es aber auch, sie als Faktoren der Lebenshaltung zu werten, die in erster Reihe Beachtung verdienen, wenn das Ziel der sozialökonomischen Planung in der planmässigen Anpassung von Produktionskapazität und Lebenshaltung gesehen wird.

Die Persönlichkeiten, die die Untersuchungen über die Arbeitslosigkeit als Vorbereitung für den Kongress vorschlugen, wurden zumeist von der Auffassung geleitet, dass die Schwankungen in der Beschäftigung die Lebenshaltung in erheblichem Masse gefährden. Oder anders ausgedrückt: Eine wirtschaftliche Depression grossen Ausmasses, verbunden mit Arbeitslosigkeit, ist an sich ein Unglück; ihre häufige Wiederkehr erhöht den Druck der Krise und übt einen weiteren unheilvollen Einfluss aus, indem sie das Gleichgewicht zwischen Produktion und Konsum stört. Wenn der wirtschaftliche Fortschritt eine

¹ Die beiden Vorträge und die wesentlichen Punkten der Aussprache werden in dem Band über sozialökonomische Planung veröffentlicht werden, der die Vorträge und Aussprachen des Kongresses enthält, während der vorliegende Band die eigentlichen Untersuchungen bringt, die als Vorberichte erschienen sind.

EINFÜHRUNG UND ZUSAMMENFASSUNG

langsame Hebung der Lebenshaltung bewirkt bis zu einem gewissen Niveau, das so lange als gegeben betrachtet werden kann, bis die Produktionssteigerung einen weiteren Fortschritt ermöglicht, so würde diese Sicherheit - selbst wenn das Niveau noch nicht befriedigend erscheint - ein Dasein ohne schwere Sorgen ermöglichen. Wenn aber damit zu rechnen ist, dass das in einer Zeit steigenden Wohlstandes erreichte Niveau sinken wird, - wenn der Arbeiter nicht weiss, ob er nicht als Erster Arbeit und Brot verlieren wird, - dann hemmt die Existenzunsicherheit die gedeihliche und aufbauende Arbeit für die Gesellschaft als Ganzes und für die Einzelnen, die ihr angehören. Die Furcht vor der Krise wirkt dann stärker als die Arbeitslosigkeit selbst in einem gegebenen Zeitpunkt. Darum wurde versucht, ein statistisches Bild der Schwankungen der Beschäftigungsziffer für den Zeitraum von zwei Dezennien, 1910 bis 1930, zu vermitteln oder wenigstens für die Jahre, für die statistische Berechnungen vorliegen.

Hier ist ein Problem, das der Lösung harrt. Der internationale Kongress wurde vor die Frage gestellt, ob das Problem auf nationalem Boden zu lösen ist oder ob die Arbeitslosigkeit sich als internationales Problem entwickelt habe. Die Beantwortung dieser Frage wurde versucht 1.) durch einen Vergleich der Perioden der Arbeitslosigkeit und der Stärke der Schwankungen der Beschäftigungsziffern in den einzelnen Ländern, um festzustellen, ob sie zeitlich zusammenfielen; 2.) durch eine Untersuchung der Ursachen, die das Steigen und Fallen der Beschäftigung bewirken, an Hand von Studien in den Ländern der Berichterstatter.

Ein Vergleich der Berichte zeigt im grossen und ganzen, dass die Beschäftigung in der Zeit unmittelbar vor dem Kriege stieg. Die erste Wirkung des Schocks war Arbeitslosigkeit im Jahre 1914, und zwar nicht nur in den unmittelbar betroffenen Ländern, sondern auch in den U. S. A. und in Kanada. Auf den Krieg folgte ein vorübergehender Aufschwung. Das Jahr 1921/22 wird durch eine Depression gekennzeichnet und gegen-

EINFÜHRUNG UND ZUSAMMENFASSUNG

wärtig haben wir - vom Jahre 1930 ab gerechnet - den niedrigsten Stand der Beschäftigung und der Löhne innerhalb der Zeit, für die vergleichbare statistische Angaben vorliegen, erreicht.

Eine Ausnahme bildete die russischen Sowjetrepublik, für die in dieser Periode nicht Arbeitslosigkeit, sondern Kurzarbeit charakteristisch war. Das Material der Vorkriegszeit reicht für internationale Vergleiche nicht aus, da zum Beispiel keine Unterlagen für die Zeit vor 1913 zur Verfügung stehen. Nach dem Krieg und unter dem neuen System hat die Kurve der durchschnittlichen Beschäftigungsziffer sich im ganzen unabhängig entwickelt, und weist zeitlich nicht Uebereinstimmung mit den Bewegungen der Beschäftigungsziffer anderer Länder auf, wie dies in Deutschland, Grossbritannien und in den U.S.A. der Fall ist. Obgleich manches darauf hindeutet, dass das Sinken der Grosshandelspreise für Rohstoffe und Lebensmittel, das für die gegenwärtige Depression des Weltmarktes charakteristisch ist, Russlands Einnahmen aus dem Export beeinträchtigt hat, so lässt sich für die Sowjetrepublik als Ganzes doch eine fortschreitende Entwicklung in der Richtung auf einen günstigen Ausgleich zwischen der effektiven Nachfrage (um einen Ausdruck der alten Nationalökonomie zu gebrauchen) der Konsumenten und der nationalen Produktion feststellen.

Unter ganz anderen Bedingungen zeigt China ein abweichendes Bild, weil die Organisation des Wirtschaftslebens sich dort in einem anderen Stadium befindet als in den Ländern der westlichen Welt. Vergleichbare Zahlen fehlen, aber die Untersuchung über die chinesischen Wirtschaftsprobleme bringt zum Ausdruck, welche Bedeutung eine auf internationale Zusammenarbeit gerichtete Wirtschaftspolitik für dieses Land haben würde. Es ist interessant, dass nicht nur in Russland die Industrialisierung nächstes Ziel ist, sondern dass die Verfasser der Arbeit über China behaupten, die Industrialisierung sei Voraussetzung für die Hebung der Lebenshaltung. Sie haben

EINFÜHRUNG UND ZUSAMMENFASSUNG

auch hervor, dass die Politik der Weststaaten, insbesondere das bekannte Problem der Exterritorialität, Chinas Streben nach industrieller Entwicklung im nationalen Interesse und unter sozialer Verwaltung in hohem Masse erschwere. Eine weitere Erschwerung besteht darin, dass die chinesischen Industrien sich im Eigentum und unter der Regie von Angehörigen fremder Nationen befinden; hieraus erklärt sich die Furcht, dass die Planwirtschaft nur eine andere Form der Ausbeutung durch wirtschaftlich höher entwickelte Nationen für China bedeuten würde.

Wenden wir uns nun für einen Augenblick von den internationalen Fragen, der Beschäftigung in den einzelnen Betrieben zu, so vermitteln die Zahlen des sogenannten Belegschaftswechsels in dem Bericht über die Vereinigten Staaten interessante Aufschlüsse. Der beschäftigungslose Arbeiter wird immer von einem Einzelbetrieb entlassen und im Einzelbetrieb treten die Wirkungen der ausgedehnten Schwankungen in Produktion und Handel als menschliches Schicksals zu tage. Die statistischen Darstellungen, die für die Vereinigten Staaten aufbereitet wurden, zeigen die Bewegung der Arbeitseinstellungen und Entlassungen in einigen ausgewählten Betrieben auf im Vergleich mit den allgemeinen Beschäftigungsziffern. Eine ähnliche Statistik für die gleichen Betriebe zeigt die Schwankungen in der Zahl der „freiwillig aufgegebenen“ Arbeitsstellen und der Entlassungen innerhalb des gleichen Zeitraumes auf. Diese Statistiken zeigen in anschaulicher Weise, wie sich die Entwicklung im einzelnen Betrieb verhält zu der grösseren wirtschaftlichen Entwicklung innerhalb der Volkswirtschaft und der Weltwirtschaft, von der sie einen Teil bildet. Dieses könnte eine bildliche Darstellung für die Gründe sein, die unsere Vereinigung, die sich mit dem Studium und der Förderung befriedigender menschlicher Beziehungen im Wirtschaftsleben beschäftigt, und die ihr Interesse in der Vergangenheit besonders auf die Beziehungen zwischen Arbeitgeber und Arbeitnehmer in den einzelnen Fabriken richtete.

EINFÜHRUNG UND ZUSAMMENFASSUNG

veranlasst haben, sich jetzt dem grösseren Problem der sozial-ökonomischen Planung zuzuwenden, und zwar nicht nur in Bezug auf einzelne Unternehmen, sondern auf ganze Industrien, Nationen und die Weltwirtschaft.

Die I. R. I. verfolgt ihre Geschichte zurück bis zu Konferenzen im Jahre 1922. Die Untersuchungen über Schwankungen in der Beschäftigung während der kritischen Kriegsjahre und in der Jetztzeit decken sich mit den Notzeiten, die die I. R. I. ins Dasein riefen, und sie verschaffen, wenn man es so nennen will, einen Index über die Wetterbedingungen unter denen Arbeitgeber und Arbeitnehmer, Personaldirektoren, Ingenieure und Wissenschaftler, die alle zu den Mitgliedern der Vereinigung gehören, während der letzten Dekade zu arbeiten hatten.

Darüber hinaus sind diese Studien von weiterem Interesse vom Gesichtspunkt der sozialökonomischen Planung aus. Sie bestätigen weitgehend die viel präziseren Untersuchungen der Beschäftigungskurven in den verschiedenen Industrien und deren Beziehungen zu einander, was in der nationalen und internationalen Wirtschaftsplanung ein wesentlicher Teil der Forschung sein muss. Statistiken über Beschäftigung und Einkommen zeigen sozusagen den Grad des Gleichgewichts zwischen Produktion und Kaufkraft an. Trends in der unmittelbaren Vergangenheit sind das Material, das diejenigen gebrauchen müssen, die die unmittelbare Zukunft planen und entwerfen sollen. Schwankungen in der Gegenwart können ein Gefahrensignal darstellen, das anzeigt, dass das Gleichgewicht gestört ist.

Um solche Vergleiche, die von höchster Bedeutung für die Gewinnung einer Basis für internationale wirtschaftliche Zusammenarbeit sind, zu ermöglichen, muss eine Vereinheitlichung angestrebt werden.

Aus diesen Versuchen zur Sicherung vergleichbarer Masstäbe geht klar hervor, dass die zahlenmässige Erfassung der Arbeitslosigkeit, selbst nur in einem Lande, eine schwierige Auf-

EINFÜHRUNG UND ZUSAMMENFASSUNG

gabe ist, und dass es fast unmöglich ist, eine internationale Vergleichsskala zu finden. Der Grund ist offensichtlich darin zu suchen, dass eine Abgrenzung des Begriffes der Arbeitslosigkeit schwierig ist, und dass, gleichviel wie diese Abgrenzung vorgenommen wird, die zahlenmässige Erfassung der Einzelpersonen, die sie erforderlich macht, kostspielig und schwierig ist. Die Angaben über die Arbeitslosigkeit, die für Grossbritannien und Deutschland beigebracht wurden, ergeben sich aus der Verwaltung der Arbeitslosenversicherung. Diese Zahlen wären nur vergleichbar bei einer absoluten Uebereinstimmung der Gesetzgebung in den einzelnen Ländern und ihrer unterschiedslosen Durchführung. Dies lässt sich offenbar nicht ermöglichen. Man kann nur die Statistiken der einzelnen Länder gesondert betrachten und vergleichende Schätzungen anstellen.

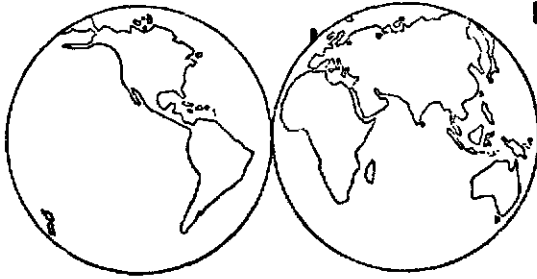
Die Beziehungen zwischen der Statistik der Arbeitslosigkeit und dem Vorhandensein bestimmter Verwaltungseinrichtungen werden deutlich an dem Mangel von orientierendem Material in den Vereinigten Staaten. Der Mangel an statistischen Grundlagen über die Ausdehnung der unfreiwilligen Arbeitslosigkeit ist nicht auf den Interessenmangel der Vereinigten Staaten für statistische Untersuchungen, sondern auf das Nichtvorhandensein einer Arbeitslosenversicherung zurückzuführen. Die Vereinigten Staaten verfügen jedoch über ein ständig vervollkommenetes System der monatlichen Berichterstattung über die Zahl der in den Lohnlisten eingetragenen Personen und die Gesamtlohnsummen. Wenn man die Untersuchungen, die in diesen Arbeiten vorgenommen sind, studiert, so kommt man zu dem Schluss, dass die internationale Vergleichbarkeit abhängig ist von der Entwicklung einer monatlich oder in kürzeren Intervallen erfolgenden Statistik der Zahl der Lohnempfänger und der Gesamtlohnsummen in massgeblichen Betrieben der typischen Industriezweige. Die so gewonnenen Masstäbe sind zuverlässig und bieten keine Schwierigkeiten für die begriffliche Abgrenzung. Ihre Gewinnung wird allerdings beinträch-

EINFÜHRUNG UND ZUSAMMENFASSUNG

tigt durch die Schwierigkeit, die Industrien in den verschiedenen Ländern zu klassifizieren. Mit diesen Problemen sowie mit den Versuchen, eine Vereinheitlichung der Statistik über Beschäftigung und Arbeitslosigkeit herbeizuführen, hat sich das Internationale Arbeitsamt seit mehreren Jahren befasst, seine Bemühungen sollten in weitgehendem Masse von den Kreisen der Wirtschaft und von den Regierungen in den verschiedenen Ländern unterstützt werden.

Zum Schluss sei noch ein Wort über die Bedingungen der Arbeitslosigkeit in den verschiedenen Ländern, so wie sie sich besonders von internationaler Warte aus darstellen, gesagt. Dr. Lazard kam zu dem Ergebnis, dass nicht die Arbeitslosigkeit, aber die allgemeine Wirtschaftskrise das eigentliche Problem ist, das in der Gegenwart der Erforschung bedarf. Er ging davon aus, dass zu allen Zeiten drei Faktoren für die Arbeitslosigkeit von Bedeutung sind: (1) der Arbeitsmarkt, (2) der Absatzmarkt und (3) der Geldmarkt. Die ausschlaggebenden Faktoren sieht Dr. Lazard gegenwärtig im Absatzmarkt und Geldmarkt. Darüber hinaus wird die Lage - unter allen drei Gesichtspunkten betrachtet - ungeheuer erschwert durch die internationale Politik und durch Spannungen, die nicht ursprünglich wirtschaftlicher Natur sind, aber doch einen weitreichenden Einfluss auf die Wirtschaft ausüben. Der durch die Furcht vor der Existenzunsicherheit geförderte Nationalismus schafft eine Atmosphäre, die die wichtigsten Faktoren wirtschaftlicher Zusammenarbeit in einem Augenblick lähmt, in dem diese Zusammenarbeit dringend notwendig ist und die Wiederherstellung des Gleichgewichtes in der Produktion hemmt.

Dies sind die tatsächlichen Grundlagen der Aussprache über sozialökonomische Planung, für die Untersuchungen in den einzelnen Ländern die Einführung bilden.



PROGRAMME

OF THE

1 9 3 1

WORLD SOCIAL ECONOMIC CONGRESS

**UNDER THE AUSPICES OF THE INTERNATIONAL
INDUSTRIAL RELATIONS ASSOCIATION (I. R. I.)
66 JAVA STRAAT · THE HAGUE · HOLLAND**

P L A C E : A M S T E R D A M · H O L L A N D

D A T E : A U G U S T 23 E V E N I N G T O 29 M O R N I N G

**S U B J E C T : S O C I A L E C O N O M I C P L A N N I N G
T H E N E C E S S I T Y F O R P L A N N E D A D J U S T M E N T O F
P R O D U C T I V E C A P A C I T Y A N D S T A N D A R D S O F L I V I N G**

**P R E S I D I N G O F F I C E R : C . H . V A N D E R L E E U W
P R E S I D E N T I N T E R N A T I O N A L I N D U S T R I A L R E L A -
T I O N S A S S O C I A T I O N**

**M E E T I N G P L A C E : K O L O N I A A L I N S T I T U U T
A M S T E R D A M**

SUNDAY

23

- 20.— OPENING MEETING. REPORT ON CONGRESS PROCEDURE, FOLLOWED BY INFORMAL RECEPTION.

MONDAY

24

I. THE PRESENT PARADOX—UNEMPLOYMENT
IN THE MIDST OF ECONOMIC PROGRESS

- 9.— Address by Dr. F. Wibaut, Member of the Town Council of Amsterdam

- 9.15 1. THE SIGNIFICANCE OF WORLD-WIDE UNEMPLOYMENT

Speaker: Dr. Max Lazard, Paris

Interpretation of reports on fluctuations in employment and unemployment in various countries, 1910-1930 (Great Britain, France, Australia, U.S.A., Canada, U.S.S.R., China, Germany), printed and available in advance; by Dr. F. C. Benham, London School of Economics and Political Science, formerly lecturer in the University of Sydney, Australia; Dr. W. A. Berridge, Metropolitan Life Insurance Company, U.S.A., and member of Committee on Governmental Labor Statistics of the American Statistical Association; Dr. Susan M. Kingsbury and Dr. Mildred Fairchild, Bryn Mawr College, U.S.A.; L. K. Tao, Director, and S. H. Lin, Institute of Social Research, Peiping, China; and Dr. Robert Wilbrandt, Technische Hochschule, Dresden, Germany.

- 10.15 2. RECENT GROWTH IN THE WORLD'S PRODUCTIVE CAPACITY.

Speaker: Dr. Otto Neurath, Director, Social Economic Museum, Vienna

- 490 11.15 Intermission

M O N D A Y (cont'd)

11.30 Discussion: Dr. F. C. Benham, London School of Economics and Political Science (University of London); Dr. Robert Wilbrandt, Technische Hochschule, Dresden.

12.45 A d j o u r n m e n t

II. PRINCIPLES AND PRACTICABILITY OF ECONOMIC PLANNING

14.15 1. PRINCIPLES AND PRACTICE OF SCIENTIFIC MANAGEMENT: UNITED STATES

Speaker: Dr. H. S. Person, Managing Director of the Taylor Society, New York; formerly Director of the Amos Tuck School of Administration and Finance, Dartmouth College, U. S. A.

14.45 2. PRINCIPLES AND PRACTICE OF SCIENTIFIC MANAGEMENT: EUROPE

Speaker: Hugo von Haan, International Management Institute, Geneva

15.15 Discussion: Dr. Heinz Ludwig, Member of Board of Directors, Hermann Meyer & Co. A.G., Berlin; Edmond Landauer, Secrétaire Général du Comité International de l'Organisation Scientifique, Paris; Ing. Dr. Stan. Spacek, Ministry of Public Works, Tcechoslovakia; Wallace Clark, Consulting Engineer, New York and Paris; Henri Pauwels, Confédération des Syndicats Chrétiens de Belgique, Bruxelles.

16.15 I n t e r m i s s i o n

16.30 General Discussion

17.45 A d j o u r n m e n t

TUESDAY

25

9.— 3. THE PROBLEM OF PLANNED ECONOMY

Speaker: Dr. Lewis L. Lorwin, Institute of Economics of the Brookings Institution, Washington, D.C., U.S.A.

9.45 Discussion: Professor J. B. Tayler, M.Sc., Professor of Economics, Yenching University, Peiping, CHINA; Bertrand de Jouvenel, author of "l'Economic Dirigée", Paris; Gerald Barry, Editor, Week-End Review, London.

11.— Intermission

11.15 Continuation of Discussion: Dr. F. Meyer zu Schwabedissen, Partner Bertelsmann & Niemann, Bielefeld, GERMANY

11.40 General Discussion

12.45 Adjournment

III. EXPERIENCE IN NATIONAL ECONOMIC PLANNING:

A. AGRICULTURAL B. INDUSTRIAL

14.15 THE UNION OF SOVIET SOCIALIST REPUBLICS

Speakers: Valery V. Obolensky-Ossinsky, Economist, Member of the Institute for Economic Research of the State Planning Commission (Gosplan); Head of U. S. S. R. Delegation to 1927 World Economic Conference, Geneva

Assisted by: Solomon Ronin, Member of the Institute for Economic Research and Member of the State Planning Commission (Gosplan); Aron Gayster, Vice-President of the Agricultural Academy of the U. S. S. R. and Member of the State Planning Commission (Gosplan); Ivan Kraval, Director of the Labor Research Institute; Alexander Cohn, Director of the Institute for Foreign Trade

TUESDAY (cont'd)

- 16.— Intermission
- 16.15 General Discussion
- 17.45 Adjournment
- 20.— Continuation of General Discussion

WEDNESDAY

26

IV. NECESSITY AND MEANS FOR INTERNATIONAL ECONOMIC PLANNING

- 9.— 1. INTERNATIONAL PLANNING BY INDUSTRIES
Speaker: Professor M. Palyi, Economist of the Deutsche Bank und Disconto-Gesellschaft, and Professor at the Handelshochschule, Berlin
- 9.40 Discussion: Professor Ernest M. Patterson, President, American Academy of Political and Social Science, Philadelphia, U. S. A.; Hugh Quigley, Chief Statistical Officer of the Central Electricity Board, England
- 10.10 General Discussion
- 10.45 Intermission
- 11.— 2. MASS DISTRIBUTION AND HIGHER STANDARDS OF LIVING
Speaker: Edward A. Filene, Wm. Filene's Sons' Co., Boston, U. S. A.
- 11.30 Discussion: P. J. S. Serrarens, Secretary International Federation of Christian Trade Unions, Utrecht, Holland.
- 12.— General Discussion
- 13.15 Adjournment
- Afternoon No session

THURSDAY .

27

- 9.— 3. THE FUNCTIONING OF THE INTERNATIONAL FINANCIAL SYSTEM IN THE ECONOMIC WORLD
- Speaker: Professor M. Palyi, Economist of the Deutsche Bank und Disconto-Gesellschaft, Berlin
- 10.— Discussion
- 11.— Intermission
- 11.15 General Discussion
- 12.45 Adjournment
- 14.15 4. ECONOMIC SERVICE OF THE LEAGUE OF NATIONS
- Speaker: Professor Rudolf Broda, President, League for the Organization of Progress, Antioch College, Yellow Springs, Ohio
- 15.— 5. EXPERIENCE AND POTENTIALITIES IN INTERNATIONAL ECONOMIC TREATIES
- Speaker: Professor Joseph P. Chamberlain, Columbia University, New York
- 15.45 Intermission
- 16.— Discussion: Dr. Max Lazard, Paris; Hans Mars, Consultant on Scientific Management and Rationalisation of the "Kammer für Arbeiter und Angestellte", Vienna
- 16.45 General Discussion
- 17.45 Adjournment

FRIDAY

28

V. STANDARDS OF LIVING—THE RESULTANT
OF PRODUCTIVE CAPACITY AND BUYING
POWER

9. — 1. INTERNATIONAL AGREEMENT ON LABOR STANDARDS

Speaker: Albert Thomas, Director International Labor Organization, Geneva

10.— 2. THE ECONOMIC POLICY OF THE INTERNATIONAL LABOR MOVEMENT

Speaker: F. Naphtali, Director of Economic Research for Trade Unions, Member of National Economic Council, Berlin

10.45 Intermission

11.— Discussion: Dr. Frieda Wunderlich, Economist, Member of the "Preussischen Landtag", Editor of "Soziale Praxis", Berlin; Dr. M. G. Levenbach, Lecturer in Labor Law, University of Amsterdam.

12.45 Adjournment

VI. ROUND TABLE CONFERENCE ON THE
WORKSHOP

Chairman: Prof. Dr. Goetz Briefs, Director of Institute for Industrial Sociology and Social Science, Technische Hochschule, Berlin

14.15 1. FIRST SESSION

Starting point of discussion—the Industrial Employment Code in process of formulation by a committee of the Taylor Society, New York. Discussion opened by Morris L. Cooke, consulting engineer, Member Power Commission of New York State; formerly Director of Public Works of the City of Philadelphia, U. S. A.

F R I D A Y (cont'd)

Paper read by title: Human Relations in the Electrical Industry in the United States and Canada by H. H. Broach, President, International Brotherhood of Electrical Workers, Washington D.C., U.S.A.

15.45 **I n t e r m i s s i o n**

16.— **2. SECOND SESSION**

Subject: The Workshop as a Unit in Planning under Different National Systems

17.45 **A d j o u r n m e n t**

20.15 **VII. THE NECESSITY FOR WORLD SOCIAL
ECONOMIC PLANNING**

Speaker: Mary van Kleeck, Director Industrial Studies, Russell Sage Foundation, New York; Vice-President I. R. I.: Chairman of Congress Programme Committee.