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UNEMPLOYMENT PROBLEMS
IN THE
UNITED STATES

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FOREWORD

No feature of the economic crisis is more symptomatic of its gravity or more disturbing to its observers than the severity of its effects in the United States. The widespread unemployment which crept over the country in 1930 is all the more striking in contrast with the remarkable prosperity which had characterised the previous seven years. The great increase in productivity and wealth, the rapid development of material resources and the well-devised system of financial regulation which marked that period were not proof against the wave of depression that swept over the rest of the world. In spite of its unprecedented progress since the war, the United States became involved in the common economic disaster to as great a degree as any other country. It has become only too evident that no general understanding has been attained of the laws which determine the working of the complicated international mechanism of credit and commerce, which has been built up and extended without any attempt at systematisation, still less at co-operative control. Unemployment is one of the most serious consequences of this failure to master the economic forces upon which the material well-being, and to a large extent the political stability, of human society depend. Its various phases and appearances, as they may be found under different national conditions, are therefore being anxiously scrutinised in the hope of deducing lessons which may contribute to that science of economic equilibrium that is now generally agreed to be indispensable, if the world is to be spared similar crises in the future.

It is becoming increasingly recognised that such a science must be international in its scope, and that it must therefore take account of the phenomena to be found in every country which participates in the economic life of nations. In view of the great industrial, financial and commercial importance of the United States, it is particularly necessary for anyone engaged in studying the causes and consequences of unemployment to devote considerable attention to the problems which it presents under American conditions. The aim of this brief sketch is to give a general idea of the nature and extent of the unemployment
problem in the United States, which may serve as an introduc­tion to those who are unfamiliar with American conditions. As may be judged from its size, it has no pretension to be comprehensive or exhaustive. It omits many facts and circumstances which will at once occur to American students of unemployment, in the endeavour to present a general outline stripped of details which are more important to the specialist than to the mere general reader trying to obtain a bird's-eye view. This has necessarily involved making a rigorous selection from the great mass of material available, and the consequent omission of a number of matters which, though interesting in themselves, were of secondary importance in an introductory study. It is hoped, however, that it contains sufficient indications of sources of information to open the door leading to the great bulk of American literature on the subject to those who wish to undertake more detailed investigation.

Some apology must also be offered for the further defects inseparable from a highly compressed survey of a vast field. It was impossible to give any account of the peculiar features of the American situation without referring from time to time to some of the theoretical controversies affecting the unemployment problem in general. To have ignored them would have involved passing over some of the most debated questions which are inseparable from any consideration of the practical prevention of unemployment. To touch summarily upon intricate problems of economic theory is necessarily unsatisfactory, but it seemed preferable to adopt this method with all its disadvantages rather than either to gloss over them entirely, or to transform the character of the present sketch by devoting the space necessary to their fuller discussion.

For these and other deficiencies, the author can only ask for indulgence on the ground that his principal object has been to give some guiding lines to those who are concerned with the unemployment problem in other countries. He could not have even attempted such a task without the unstinting help, advice and information afforded to him during a visit to the United States last autumn. In no country, perhaps, are those responsible for the conduct of public or private business so ready to place their time and experience freely at the disposal of enquirers. To compile a complete statement of his indebtedness would require a considerable number of pages, but the author would, in particular, wish to acknowledge the extent of assistance received from the
Departments of Commerce and Labor, the American Federation of Labor, Industrial Relations Counselors Inc., the National Industrial Conference Board Inc., the Amalgamated Clothing Workers, the American Association for Labor Legislation, and the Washington Branch of the International Labour Office, and only regrets that he can only make a general acknowledgment to the many friends, both in official and other circles, who rendered his visit fruitful and instructive.

Finally, he owes much to Mr. P. W. Martin, who read the whole of the manuscript and gave a great deal of constructive and critical assistance, to Mr. T. W. Spates for a number of valuable suggestions and criticisms, and to Mr. S. L. Childs for his help in collecting material while in the United States.
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CHAPTER I

EXTENT OF UNEMPLOYMENT

In any consideration of the unemployment problem as it presents itself in the United States, some general idea of the extent of unemployment, both in normal times and in the present period of depression, is necessary. As no regular statistics of American unemployment are published, its calculation must largely be arrived at by reviewing the various data available which bear on employment and thus attempting to reach some approximate estimate of unemployment by inductive methods.

« NORMAL » UNEMPLOYMENT

It is first important to obtain some notion of what may be regarded as the average number of persons out of work in “normal” times, when trade is in a satisfactory state. Of every industrial community there is necessarily a certain proportion which is not working at any given moment. Some persons have voluntarily relinquished their employment for one reason or another to seek another job; others are temporarily incapacitated by sickness; others belong to the class of persons who prefer or who are only fit for intermittent work, and who are often classified as “unemployable”. Further, in addition to these categories whose absence from employment is due to accident or to their own volition, there is the more important category of those who are “genuinely unemployed”. This class includes those attached to industries which, often through want of adequate organisation, offer only casual employment. But by far the largest part consists of those who have lost their jobs through no fault of their own, because the work on which they were engaged has ceased. This may be due to the termination of contracts, to reduction of staff owing to shortage of orders, seasonal slackness of trade or the introduction of labour-saving devices, to the closing of establishments owing to bankruptcy, voluntary liquidation, or concentration of production through merger, or to other similar causes over which the worker has no control.

The aggregate number of people out of work for all the above
reasons must be fairly considerable in any particular week in any industrial community. Industrial life is in a constant state of flux. Its complete stabilisation would mean its stagnation. The actual total will moreover largely depend on the test applied in defining unemployment for statistical purposes. Where, as in Great Britain, the period without work is practically fixed at three days, the total will be relatively larger than in Germany, where it is fixed at a fortnight and where so large a number of quick transitions from one job to another will accordingly not figure in the records. Where, however, as in the United States, there is no definite test available at all, any calculation of unemployment must necessarily be extremely approximate, and the figure arrived at will only be very roughly comparable with those of countries possessing regular statistical data.

A number of American economists have endeavoured in recent years to construct from the available evidence an estimate of the "normal" unemployment figure. Of these the most authoritative is perhaps that of Dr. Leo Wolman prepared for the Committee on Recent Economic Changes of the President's Conference on Unemployment. Previous estimates had already indicated the broad limits of the problem. The Labor Bureau Inc., starting from the assumption that there were 1,000,000 out of work on the average in 1923, calculated that by 1927 there had been a decline of 1,200,000 in the number of persons employed in manufacture, mining and railways and a migration of 1,000,000 farm-workers to the towns. To balance this shrinkage of 2,200,000 there was an increase of 2,100,000 in building, amusements, automobile services and other commercial or distributive occupations, leaving the number of employed persons about the same as in 1923. On the other hand, the increase of the population had brought 3,000,000 more employable persons into the market, so that the unemployment figure had risen from 1,000,000 to 4,000,000.

The U.S. Bureau of Labor Statistics, on the other hand, took the average of 1925 as a basis, assuming that there had been no "noticeable unemployment question" in that year. By January 1928 the Bureau estimated that there had been a decline of employment generally to the extent of 1,874,500 persons. Other estimates placed the figure substantially higher, though below that of the Labor Bureau Inc.

1 See Recent Economic Changes in the United States, pp. 467-469. New York, 1929.
Setting out to re-examine the question in the light of these earlier attempts, Dr. Wolman essayed to establish the volume of unemployment as “the difference between the number of persons actually employed and the number desiring and habitually dependent upon employment”. Taking the various occupational groups in turn and calculating the growth or shrinkage of employment in each of them between the years 1920 and 1927, evidence of a remarkable occupational redistribution of the working population was disclosed in that short period. The salient features were a marked decline in manufacturing (797,000) and railways (307,000), balanced by an increase in construction work (631,000) and in other forms of communication, including telephones, telegraphs and road transport (1,171,000). This net growth of employment to the extent of 698,000 was not sufficient, however, to meet the demands of the 5,100,000 additional persons seeking a living in non-agricultural pursuits, of whom about 860,000 had been displaced from agriculture. Most of them attached themselves to commercial or other non-industrial occupations. There was a considerable expansion of the categories of mercantile employees (1,408,000) and of “miscellaneous occupations” (2,462,000) comprising such occupations as hotels, restaurants, garages, cinemas, coiffeurs, beauty-parlours, professional offices, etc. All these people passing from one kind of employment to another did not necessarily succeed in finding a job. In each year there was a considerable residue at any moment without work, varying in size with the state of business. The following table gives the estimated numbers.

**TABLE I. — ESTIMATED AVERAGE MINIMUM VOLUME OF UNEMPLOYMENT IN THE UNITED STATES, 1920-1927**

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-agricultural wage and salary earners</th>
<th>Average minimum number unemployed</th>
<th>Percentage unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>27,558,000</td>
<td>1,401,000</td>
<td>5.1</td>
</tr>
<tr>
<td>1921</td>
<td>27,989,000</td>
<td>4,270,000</td>
<td>15.3</td>
</tr>
<tr>
<td>1922</td>
<td>28,505,000</td>
<td>3,441,000</td>
<td>12.1</td>
</tr>
<tr>
<td>1923</td>
<td>29,293,000</td>
<td>1,532,000</td>
<td>5.2</td>
</tr>
<tr>
<td>1924</td>
<td>30,234,000</td>
<td>2,315,000</td>
<td>7.7</td>
</tr>
<tr>
<td>1925</td>
<td>30,941,000</td>
<td>1,775,000</td>
<td>5.7</td>
</tr>
<tr>
<td>1926</td>
<td>31,808,000</td>
<td>1,669,000</td>
<td>5.2</td>
</tr>
<tr>
<td>1927</td>
<td>32,695,000</td>
<td>2,055,000</td>
<td>6.3</td>
</tr>
</tbody>
</table>

1 *Recent Economic Changes*, pp. 469-478.
If these estimates are accepted as approximately correct, it will be seen that in the most prosperous years the percentage of unemployment has never fallen below 5 per cent. of the wage-earning population since the war, and that something between 1,500,000 and 2,000,000 may be regarded as the average number of the unemployed in normal times. But even this figure may be suspected of erring on the low side. Professor Wesley Mitchell considers it as a minimum. Professor Paul H. Douglas, who has recently re-examined the whole calculation, points out that it assumes as low an average percentage of unemployment as 2.9 in the mercantile and miscellaneous classes. If these categories are omitted, about which there are very scanty data, considerably higher percentages are found to exist for the manufacturing, mining and transport industries combined. For the years 1919-1926 the average percentage is 9.7, while even for the good years 1923-1926 it is as high as 7.3.

For the moment it is unnecessary to embark on any commentary upon these figures. Making every allowance for the uncertainty of some of the statistical material from which they are derived, there seems to be good ground for supposing that the "normal" unemployment average for non-agricultural occupations since the war has ranged from at least 1 1/2 to 2 millions, with a probability in favour of the latter rather than the former figure. In a population exceeding 120 millions, of which about 32 millions were engaged in non-agricultural pursuits in 1927, this is probably not an exaggerated figure.

**Unemployment in 1930**

Taking as a point of departure the expectation that in normal or good times there are about 2 million persons out of work on the average, it is certain that during 1930 the number was very much greater, but again, in the absence of any complete statistics, the actual amount can for the most part only be roughly estimated by indirect methods. It is true that the census returns, which relate to the date 1 April, were utilised in order to ascertain the number of unemployed on that day. The returns showed that there were 2,429,062 persons "without a job, able to work and

---

1 Recent Economic Changes, p. 879.
looking for a job". In addition it was found that there were 758,585 persons "having jobs, but on lay-off without pay", excluding those sick or voluntarily idle. While some of these were no doubt only partially unemployed or temporarily stopped, it may be suspected that others who had been discharged still believed or hoped that they had jobs which, in fact, they were unlikely to recover. From these figures it would appear that there were about 3,187,000 persons out of employment, to which should be added a certain number idle through sickness or inability to work in order to obtain a complete total. Two other points have to be borne in mind. First, the census returns only relate to a single day. They are a spotlight illuminating the darkness for an instant and almost immediately extinguished. Secondly, many people are reluctant to confess to census officials that they are idle, and are therefore not recorded as being out of work. This reluctance is likely to be encountered especially among immigrants, who would risk deportation if found liable to become a charge on public funds. For these reasons, the indications furnished on unemployment by the census cannot be compared in point of completeness or accuracy with those obtained month by month under State schemes of unemployment insurance, which offer a direct inducement to the workless to register.

Passing from statistics of unemployment, an attempt may be made to test the indications which they furnish by indirect evidence. The chief sources yielding such evidence are the statistics of employment, the statistics of production and distribution, and the estimates given by various Federal and State authorities or by employers' and workers' organisations as to the number of persons without work in their jurisdictions. By collating the data afforded by these various sources, it is not difficult to obtain a good general idea of the amount of unemployment, though, as must be again emphasised, nothing that can claim scientific precision.

THE DECLINE IN EMPLOYMENT

Although statistics of employment cannot simply be reversed in order to discover the amount of unemployment, especially when they are based only on a sample of the industrial population\(^1\), they undoubtedly furnish a very valuable indication. The most

\(^1\) For a valuable discussion of the various statistical sources, see Dr. Royal Meeker: "The Dependability and Meaning of Unemployment and Employment Statistics in the United States", in Harvard Business Review, July 1930.
important series of employment figures is that issued periodically by the Bureau of Labor Statistics. It is based upon returns from 13,613 industrial establishments employing about 3 1/4 million persons, more than one-third of the factory population, and from 25,933 other establishments in mining and quarrying, oil production, public utilities, wholesale and retail trade, hotels and food preserving, comprising another 1,700,000 persons. This index may be regarded as giving a very representative view of manufacturing employment, though rather less reliable in respect of other occupations 1.

A first notion of the drop in employment may be obtained by comparing the figure for July 1929, when general activity was still almost at its height, with July 1930, when the depression had been growing for about a year.

**TABLE II**

(*100 = average for 1926*)

<table>
<thead>
<tr>
<th></th>
<th>Employment</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>July 1929</td>
<td>July 1930</td>
</tr>
<tr>
<td>General index</td>
<td>98.2</td>
<td>81.6</td>
</tr>
<tr>
<td>Food products</td>
<td>99.5</td>
<td>94.7</td>
</tr>
<tr>
<td>Textiles</td>
<td>94.3</td>
<td>77.6</td>
</tr>
<tr>
<td>Iron and steel</td>
<td>101.1</td>
<td>84.0</td>
</tr>
<tr>
<td>Furniture</td>
<td>94.3</td>
<td>70.7</td>
</tr>
<tr>
<td>Printing</td>
<td>104.8</td>
<td>104.0</td>
</tr>
<tr>
<td>Chemicals</td>
<td>100.4</td>
<td>91.6</td>
</tr>
<tr>
<td>Automobiles</td>
<td>120.5</td>
<td>82.9</td>
</tr>
<tr>
<td>Electrical machinery</td>
<td>126.2</td>
<td>97.9</td>
</tr>
<tr>
<td>Boots and shoes</td>
<td>93.8</td>
<td>86.0</td>
</tr>
</tbody>
</table>


From this table it will be seen that in every industry, except printing, the number of persons employed was smaller in July 1930 than in 1926. It is true that in some of them this had also been the case in July 1929, probably due in most instances to the wider use of labour-saving machinery, but as between midsummer 1929 and 1930 there was clearly a very severe decline in employment, particularly in iron and steel (17.1), furniture (23.6), automobiles

1 A Bill (S. 3061) presented by Senator R. Wagner became law in July 1930, authorising the Department of Labor to extend its employment index to all the principal occupations, including agriculture.
(37.6) and electrical machinery (28.3), while the general index shows a drop of 16.6. When earnings are examined, the same evidence of decline is afforded. The general index indicates a falling-off of 22.3 per cent., while in some industries such as iron and steel, boots and shoes, furniture and textiles, the falling-off of earnings is more pronounced than that of employment, from which it may be inferred that, apart from those discharged, a considerable number of workers were only employed part-time. If the total number of wage earners employed in manufacture in 1926 be taken as 8,700,000\textsuperscript{1} and the Bureau's index be applied, there were about 1,400,000 fewer persons employed in manufacture in July 1930, of whom all but about 150,000 had lost their jobs in the previous twelve months.

The conclusion to be drawn from the indices of the Bureau of Labor Statistics are confirmed from the other statistical sources available. The Federal Reserve Board's index, based on the average employment in the years 1923-1925 and adjusted to allow for seasonal variations, shows a decline of factory employment from 103 in July 1929 to 87 in July 1930 — not appreciably different from the finding of the Bureau. During the same period pay-rolls had fallen from 105.7 to 82.6 — again to a greater extent than employment.

Finally, the American Federation of Labor publishes figures indicating unemployment among its members. As the latter mostly belong to the skilled trades, the range is not very wide, and the collection of accurate trade union statistics is always difficult. Nevertheless, the Federation's index is in harmony with those compiled from official sources, and may therefore be regarded as possessing confirmatory value, particularly as regards the building and printing trades. Whereas in July 1929 the percentage of unemployed trade unionists was under 10 per cent., it had climbed by July of the following year to 22 per cent., which, though a high figure, is not perhaps unlikely in view of the sharp decline in the building trades, which provide one of the largest sections of the Federation.

Turning to the other occupations included in the Bureau of Labor Statistics index, the most trustworthy figures are available in respect of railway employment, based on the monthly reports of the Inter-State Commerce Commission. Their returns show that between June 1929 and June 1930 there was a decline of 172,000

\textsuperscript{1} Recent Economic Changes, p. 478.
in the number of persons employed, about 10 per cent. of the total, and an equivalent loss of earnings, although railway employment is an occupation which may usually be expected to show a considerable measure of stability. From this point, however, the figures furnished by the Bureau are less trustworthy, as they are based on a far less representative sample than in the case of industry, and there is no basis of comparison earlier than 1929, the average for that year being taken as the basis. It may, however, be useful to give a summary table of these occupations.

TABLE III

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Employment 1929</th>
<th>Employment 1930</th>
<th>Earnings 1929</th>
<th>Earnings 1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining and quarrying</td>
<td>99.4</td>
<td>90.7</td>
<td>97.1</td>
<td>86.9</td>
</tr>
<tr>
<td>Public utilities (telephone, telegraph, power, light and water, electric railways)</td>
<td>98.2</td>
<td>99.0</td>
<td>98.1</td>
<td>101.3</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>98.3</td>
<td>97.5</td>
<td>98.2</td>
<td>98.3</td>
</tr>
<tr>
<td>Retail trade</td>
<td>96.3</td>
<td>94.9</td>
<td>96.7</td>
<td>96.4</td>
</tr>
<tr>
<td>Hotels</td>
<td>99.4</td>
<td>100.4</td>
<td>100.3</td>
<td>100.7</td>
</tr>
<tr>
<td>Food preserving</td>
<td>72.2</td>
<td>70.2</td>
<td>74.7</td>
<td>69.5</td>
</tr>
</tbody>
</table>


The above table suggests that in the production of coal and metals a steady decline had set in, corresponding to the general slackening of industry. Employment had shrunk to the extent of about 9 per cent. as compared with the previous year. If the production of oil is added to the mining group, the total number of workers in these callings was estimated at 1,215,000 in 1927, a figure which showed little advance on 1920. In the bad year of 1921, it was calculated that there were 90,000 more men out of work in this group than in the normal year 1927. On this basis it would probably not be very wide of the mark to reckon the difference between the numbers employed in July 1929 and July 1930 as amounting to about 100,000.

Account must finally be taken of all those deprived of their work in professional, clerical, commercial and other miscellaneous occupations, comprising a total personnel of about 13,500,000

1 Recent Economic Changes, p. 475.
on the basis of the estimates made for 1927\(^1\). Of unemployment in these important classes there is no record, except in respect of occupations included in table III above. As might be expected, no substantial fall in employment is indicated in the case of hotels and public utilities, while even wholesale and retail trades do not appear to have suffered severely by July 1930. These occupations, however, comprise only a small portion of those included in the commercial and miscellaneous groups, and the field covered by the Bureau's returns is not sufficiently wide to render them altogether reliable. It is particularly unfortunate that more information is not available about these classes in view of the fact that they are believed to have absorbed the bulk of those displaced in industry and agriculture through technical developments. That the number of commercial employees thrown out of work by the depression in these classes was very considerable admits of little doubt. The common experience of relief workers appears to have been that the proportion of "white-collar" men out of work was surprisingly high. For this it is not difficult to account. The collapse of the stock market boom alone inevitably robbed a great many people of their jobs. Apart from those who had lost their capital through speculation and were unable to maintain their businesses, large numbers of clerks and salesmen employed by broking and banking concerns to deal with the enormous volume of stock exchange transactions became quickly superfluous when the crash came. With the shrinkage of industrial production the sales services in many lines, sometimes overdeveloped in the effort to stimulate and to meet an inflated demand, were drastically curtailed. The enforced restriction of private expenditure owing to financial losses or unwillingness to buy while prices are falling, which is characteristic of all depressions, soon made its effects felt on all luxury or semi-luxury trades and services. They suffered still further on account of instalment commitments, which obliged many thousands of people to cut down their purchases of other goods in order to maintain their payments. It is naturally in these directions that the ordinary individual first begins to exercise economy when times are bad. It is therefore certain that a very considerable addition must be made to the total number of unemployed in respect of those without work in the commercial, clerical and other miscellaneous occupations. Dr. Wolman estimated the "normal" unemployment in these groups as 374,000 in

\(^1\) Ibid., pp. 471-473.
1927, which, as has been mentioned, was probably unduly low. If a guess were made, to suppose that 10 per cent. of these classes, or 1,370,000 persons, were out of work by the summer of 1929 would probably not be excessive. A rough estimate of 1,000,000 would certainly be conservative.

DECLINE IN PRODUCTION AND PRICES

It is not necessary to analyse the decline of production during the basic period July 1929-July 1930, except for the purpose of confirming the employment figures cited above. That such confirmation may be obtained can be seen from the subjoined table extracted from the Bulletin of the Federal Reserve Board.

**TABLE IV. — INDUSTRIAL PRODUCTION**

\[(1923-1925 \text{ average } = 100; \text{ adjusted for seasonal variation})\]

<table>
<thead>
<tr>
<th></th>
<th>July 1929</th>
<th>July 1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>General index</td>
<td>124</td>
<td>94</td>
</tr>
<tr>
<td>Minerals</td>
<td>114</td>
<td>97</td>
</tr>
<tr>
<td>Food products</td>
<td>96</td>
<td>94</td>
</tr>
<tr>
<td>Textiles</td>
<td>118</td>
<td>84</td>
</tr>
<tr>
<td>Iron and steel</td>
<td>152</td>
<td>93</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>125</td>
<td>111</td>
</tr>
<tr>
<td>Automobiles</td>
<td>142</td>
<td>75</td>
</tr>
<tr>
<td>Boots and shoes</td>
<td>120</td>
<td>95</td>
</tr>
<tr>
<td>Building</td>
<td>159</td>
<td>89</td>
</tr>
</tbody>
</table>

By comparing these figures with the employment figures in table II, it will be seen that production had declined even more markedly. It is particularly noticeable that the output of such basic products as iron and steel, minerals and textiles should be substantially lower, and that of automobiles should be no less than 25 per cent. lower, than in the years 1923-1925. The actual number of motor vehicles turned out in July 1930 was 262,364 as compared with 500,840 in July 1929, a drop of nearly 50 per cent. Lastly, the precipitate diminution of building contracts deserves attention, as it tends to corroborate the American Federation of Labor's unemployment figure. As in practically every case where the correlation between prices and employment is

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1 *Recent Economic Changes*, p. 478.
traceable, they are found to be falling together during the period under review. The Federal Reserve Board's indices show a general decline of wholesale commodity prices from 98 to 84, and a decline in wholesale prices of farm products from 108 to 83.

In order to crystallise the evidence of the various statistical indices in a convenient form, they have been combined in the subjoined chart.

TABLE V. — EMPLOYMENT, PRODUCTION AND PRICES, JULY 1929-JULY 1930

(1923-1925 average = 100)

<table>
<thead>
<tr>
<th>INDEX NUMBERS</th>
</tr>
</thead>
<tbody>
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(1929-1925 average = 100)

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1 Manufactures (adjusted).
2 Factory employment (adjusted).
3 Commodity prices (all commodities).

(Federal Reserve Bulletin, Nov. 1930, p. 683.)

The evidence as to the amount of unemployment in July 1930 may now be summed up. In the first place, it may be assumed that the number of those "normally" unemployed in July 1929 was about 2,000,000, a rather smaller figure than the conservative estimate given by Dr. Wolman for 1927 (see table I).

In order to arrive at the total figure for July 1930, it is necessary to add the numbers of persons discharged between the two dates. In respect of manufacturing industry it has been seen that this number may be estimated at 1,200,000, representing a decline in employment of 16.6 per cent. — a figure which is quite consistent with the decline in production indicated by table IV. In respect of railways, another 172,000 must be added, a fairly reliable figure, accounted for by the falling-off in the index of car loadings from
107 to 92. In the mining and oil group a drop of 100,000 was estimated, though this may well be below the mark, in view of the sharp falling-off of production for minerals indicated by table IV.

Hitherto no mention has been made of the important construction industry, which is believed to have absorbed a good many of those displaced in former years by the more economical use of labour in manufacture. Calculations as to the number attached to the building trade vary widely from 2,230,000, as found by the census of 1920 by allotting a certain proportion of the general labourers to the construction industries, to 1,421,000, the figure accepted by Dr. Wolman for 1927. Professor Douglas arrives at an intermediate figure of 1,594,000 for 1926, of whom he reckons 1,313,000 to have been normally at work. The year 1929 was undoubtedly one of very great construction activity, as is shown by the Federal Reserve Board’s index for building contracts, which stood at 128.1 for the first seven months as compared with the general average of 100 for the years 1925-1926. It may therefore perhaps be assumed that 1,500,000 men were actually engaged on building work in July 1929 when the index stood at 159. By July of the following year it had dropped to 89 and the average for the first seven months was only 104.3. For the same month the American Federation of Labor stated that 39 per cent. of its members in the building trade were out of work. On this basis a fall of employment of as much as 500,000 does not seem unlikely, which would still leave nearly 200,000 more men at work than in the bad year 1921. Finally, there has to be added to the total the figure of 1,000,000 for the commercial and miscellaneous occupations, which, though pure guesswork, is probably under rather than over the mark. Putting all these estimates together, the following table may be compiled of the number of those totally unemployed in July 1930.

| TABLE VI |
| "Normally" unemployed, July 1929 . . . . . 2,000,000 |
| Lost employment between July 1929 and July 1930: |
| Manufacture . . . . . . . . . . . . . . . . . 1,200,000 |
| Railways . . . . . . . . . . . . . . . . . . . . 172,000 |
| Mining, etc . . . . . . . . . . . . . . . . . . . . 100,000 |
| Building . . . . . . . . . . . . . . . . . . . . . . . 500,000 |
| Commercial and miscellaneous . . . . . . . . . 1,000,000 |
| Total . . . . . . . . . . . . . . . . . . . . . . 4,972,000 |

1 Federal Reserve Board Adjusted Index (Federal Reserve Bulletin, Feb. 1931, p. 68).
2 Recent Economic Changes, p. 477.
3 Real Wages in the United States, pp. 452-455.
As has been frequently emphasised, any such figure is based on such uncertain data that it cannot claim any degree of scientific accuracy; but it is probably sufficiently near to the truth to warrant the statement that there were between $4\frac{1}{2}$ and 5 million people out of work in the summer of last year.

**FURTHER DECLINE IN EMPLOYMENT**

The general decline continued between July and the end of the year. The Bureau of Labor Statistics index for manufacturing industry had dropped further from 81.6 in July to 75.1 in December, and that of the Federal Reserve Board from 87 to 80. The latter's figure for factory production had fallen from 94 to 81. The Bureau of Labor for the State of New York announced that its index of employment for November based on the monthly averages for the years 1925-1927 was 80.6, "the lowest figure that has been recorded for any month since the index was started in June 1914". By general agreement the two industries suffering most were building and automobiles, which, according to Colonel Arthur Woods, the Chairman of the President's Emergency Committee for Employment, accounted for about 1,000,000 unemployed between them. Both these industries were naturally influenced by seasonal causes, but the abnormal amount of unemployment is indicated by the decline in building contracts from 77 to 61 as between December 1929 and December 1930. A further indication of the depression of the automobile trade is furnished by the fact that for October the output of passenger automobiles was only 112,209, as compared with 318,462 in October 1929. Giving evidence before the Unemployment Committee of the Senate, Colonel Arthur Woods estimated that by the end of the year the total number of unemployed was between 4 and 5 millions. The American Federation of Labor put it at 5,300,000. If the calculations given above for the month of July are approximately accurate, both these estimates are below the mark, and the probabilities seem to indicate that by the end of 1930 there were at least 5,500,000 out of work in the United States and perhaps as many as 6,000,000.

This estimate is confirmed by the census undertaken in nineteen cities in the latter part of January by the Department of Commerce. It was found that at that time there were 1,930,000 persons "out

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of a job, able to work and looking for a job” in the cities covered by the survey. The April census, to which allusion has already been made, found that in the same cities there were 775,565 workless persons in April 1930, so that by January 1931 the number of unemployed had increased by 149 per cent. Applying this percentage of increase to the entire number of persons found without work in April 1930, the Department of Commerce estimated that in January 1931 the total number was 6,050,000 totally unemployed. In addition to those wholly unemployed, there were also found to be 368,149 persons in the nineteen cities covered “having jobs but on lay-off without pay”, as compared with 138,572 in April 1930, or 2.6 times as many. Some of these persons had been out of work for more than a week and were therefore totally unemployed; others were still employed part-time. If it is assumed that the number of persons temporarily or partially unemployed throughout the United States had increased in the same proportions between April 1930 and January 1931, the total number at the latter date would be about 1,972,000. This figure added to the 6,050,000 totally unemployed would give an approximate total of about 8,000,000 persons wholly or partially out of work.

This method of calculation is open to the objection that it is probable that the ratio of unemployment was higher in the nineteen cities than in the rest of the country, owing to the tendency of those out of work to gravitate towards the large centres where the prospect of work was believed to be better, and where large relief funds were being distributed. For this reason the census totals should probably be discounted to some extent. On the other hand, account has to be taken of the probability already mentioned that a substantial number of unemployed persons did not declare themselves idle for various reasons. It may therefore be concluded that the total of 8,000,000, based on the census returns, is not very wide of the mark.

It is pointed out by the Secretary of Commerce that January is usually the worst period in the year from the point of view of seasonal unemployment, and that the January census was probably taken at the time which represents the highest point of abnormal unemployment due to the effects of the world-wide depression. These conditions apply equally to other industrial countries, such as Great Britain and Germany, in which the

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1 Monthly Labor Review, April 1931, p. 35.
proportion of unemployment at the same time appears to have been similar to that found in the United States. In sixteen of the nineteen cities covered, the Census Bureau found that 20.8 per cent. of the wage and salary earning population were totally unemployed, and 4.3 per cent. partially or temporarily unemployed, making a total of 25.1 per cent. This would perhaps be too high a percentage for the whole country, but it seems to suggest a ratio comparable to that in Great Britain where in January 1931 2,662,842 persons were totally or partially unemployed, representing 21.5 per cent. of the insured population. In Germany there were 4,956,464 applicants for employment at employment exchanges in January 1931, exclusive of agriculturists and salaried employees. This represents 24.9 per cent. of the wage-earning population in 1925, also exclusive of agriculturists and salaried employees, but this percentage should no doubt be somewhat reduced in view of the growth of the working population between 1925 and 1931. After making every allowance for the want of precise comparability, and for the approximate character of these various figures, they appear nevertheless to be sufficiently accurate and comparable to suggest that the incidence of unemployment in the United States was roughly similar to that in Great Britain and Germany.

From the foregoing analysis it will be seen that although there is not material from which to obtain completely accurate statistics of unemployment in the United States, it is possible to obtain a fairly correct estimate of the number of those out of work, both in normal times and in the present period of depression. There are many factors which may, singly or in combination, produce unemployment. In certain industries seasonal fluctuations are customary or inevitable, so that at certain periods of every year there is a slackening in production and a consequent diminution of employment. Such seasonal unemployment may be found in a number of American industries, notably in the building, automobile and clothing trades, in addition, of course, to those trades which produce perishable goods during one part of the year only. Unemployment from this cause, however, is less serious than that caused by the displacement of workers through technical improvements, which often lead to a shrinkage of the amount of employment available in a given industry, at any rate for a time. Finally, there is the unemployment caused by the general economic depression, which affects all industries in a greater or lesser degree. Each of these forms of unemployment presents a
somewhat different problem. In order to avoid confusion between
them, an attempt may now be made to examine some of the
features of the present depression, with a view to distinguishing
between the factors which tend to produce unemployment in times
of abnormal periods of recession, and those which tend to produce
it during periods of expanding business.
CHAPTER II

DECLINE OF CONSUMPTION

To attempt any general account of the causes of the present depression in the United States would involve an analysis far exceeding the scope of this study, which is concerned primarily with its industrial and social aspects. Naturally, these aspects cannot be completely isolated from those of a more general character. The roots of the sudden decline from prosperity to depression are deep-seated and widespread. Some of them are of purely American origin; others are attributed to the maladjustment of the economic relations between the United States and the rest of the world; others again reside in political disturbances in various quarters of the globe, which have choked or checked the normal flow of credit and commerce to the detriment of the United States as of every other exporting country. Insufficient material is as yet available to enable the interaction of all these various factors to be correctly estimated, or their relative importance to be accurately weighed. The United States as the chief creditor country and as the greatest exporting country in the world is at the centre of the general slump. By its own actions or inactions it can exercise a powerful influence on the economic trend and, conversely, it has become sensitive to all the political, financial and commercial currents generated in other countries which affect the economic life of nations. A complete examination of the causes of American depression would therefore involve nothing less than the examination of the world depression as a whole.

At the same time there are certain features of the present situation which may perhaps be singled out without thereby unduly falsifying them, as having a fundamental bearing on the balance between production and consumption, the disturbance of which is the primary cause of the abnormal unemployment that is characteristic of periods of acute depression. In the introduction to their masterly survey, the Committee on Recent Economic Changes stressed the indispensability of maintaining this equilibrium. As they expressed it1, "our complex and intricate economic machine can produce, but to keep it producing

1 Recent Economic Changes, pp. xxi-xxii.
continuously it must be maintained in balance. During the past few years equilibrium has been fairly well maintained. We have not wasted the hours of labour by strikes or lock-outs. Until recently we have not diverted savings from productive business to speculation. . . . As long as the appetite for goods and services is practically insatiable, as it appears to be, it would seem that we can go on with increasing activity. But we can do this only if we develop a technique of balance.” The Committee suggested that it was possible not only to devise such a technique, but by “public attention and control” to apply it. At the same time they pointed out “the danger that through ignorance of economic principles or through selfish greed or inadequate leadership the steady balance will be disturbed to our economic detriment.”

Unhappily, society is far from having reached the stage when these three vital weaknesses are near the point of elimination. That will only happen when not only economic education is spread far more widely and deeply among peoples and their rulers than is at present the case, but when there is also a larger measure of agreement among economists themselves upon some of the fundamental elements of the problem of balance. It may, however, be perhaps further suggested that folly and ignorance are not alone sufficient to account for all possible disturbances of equilibrium. Buying and selling are ultimately the acts of individuals, who are influenced by all kinds of ideas and emotions uncontrolled and uncontrollable by purely economic thinking and often independent of purely economic considerations. Man is, fortunately or unfortunately, not entirely an economic or even entirely a rational animal, yet it is his actions that form the data upon which economic science works. Like many other sciences, its laws and its predictions rest on probabilities, not on certainties. Until humanity has been rationalised to a degree which is unlikely, and which many of us would probably deplore, all kinds of unforeseen occurrences due to human agency, but not necessarily to want of knowledge or wisdom, may upset the orderly sequence of economic progress. No technique of balance can therefore ever hope to achieve absolute success.

1 Recent Economic Changes, p. xx.
2 No doubt the Committee never supposed that absolute equilibrium was attainable. They have since pointed out that “a perfectly adjusted balance is not only considered practically unrealisable; it might even, if attained, tend to impede progress.” (See Planning and Control of Public Works, a Report by the President’s Committee on Economic Changes (U.S. Dept. of Commerce, 1930), p. 8).
folly and ignorance have been finally expurgated by general economic enlightenment, much greater security of balance will no doubt be attained, but it will still remain subject to actions and reactions of mankind inspired by non-economic aims or motives, not infrequently in deliberate defiance of well-understood economic self-interest.

The relatively stable equilibrium which enabled prosperity to be generally maintained at a high level in the United States from 1923 to 1929 has entirely broken down. In the past eighteen months purchasing power progressively declined. It became insufficient to absorb not merely the quantity of goods produced by industry in 1929, but even the considerably smaller quantity they had produced in the years 1923-1925. In agriculture the falling-off in demand was even more marked, as is shown by the rapid drop in prices. The index for farm products which had risen to 107 in the summer of 1929 (1926 = 100) had fallen to 83 by July and to 75 by December 1930. This decline was partly due to the failure of foreign consumers to purchase American products, particularly wheat, cotton and other raw materials, and certain manufactured articles, notably automobiles. Money from abroad was not reaching the American farmers, industrialists and workers from foreign sources in the same quantities, which diminished their capacity to maintain their own consumption of American goods. But by far the greater part of the decline was due to the failure to buy on the part of the American buyer, who had no connection whatever with any business outside the United States. As this is the most important element in the situation, it deserves first attention.

Effects of Speculation

The general effect of over-speculation which culminated in the collapse of the stock market in October 1929, and its continued decline from that date until the end of 1930, is too well known to require description. Its beginnings had been discerned as constituting a menace to equilibrium by the Committee on Recent Economic Changes. That its effect upon production and consumption was considerable is more or less commonly accepted, though competent opinion is by no means unanimous as to the precise manner in which the stock exchange boom operated upon the

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1 See table IV.
general economic situation, or as to how far its subsequent collapse was a primary cause of the depression. There is no doubt that, as Mr. Hoover informed Congress, the lure of the stock market "directed capital and energy into speculation rather than constructive enterprise". It has been suggested that the origin of the inflation of stock prices is to be found in the change in the division of the product of industry. Although during the previous five years production had been expanding rapidly, wages did not continue to absorb the same proportion of the gross profits. A larger ratio was assigned to capital, and a smaller ratio to labour. Whereas wages are for the most part quickly spent upon consumers' goods, the same is not necessarily true of investments. In so far as they are utilised for speculative purposes instead of as working capital or for the purchase of capital goods, a temporary diminution of purchasing power occurs, which may render the maintenance of production precarious. On this ground it has been strongly urged in some quarters in the United States that one of the causes which finally led to the decline was the failure to maintain wages at a sufficiently high level, by which is meant not so much that wage rates in particular industries were too low as that the total wage bill of industry did not expand to such a degree as to ensure the absorption of the increasing quantity of goods produced by industry. On the other hand, it is pointed out that large numbers of people borrowed considerable sums in order to speculate. Inasmuch as many of them mistook their paper profits for real profits and spent freely on this assumption, there was an artificial increase in purchasing power, which for the time being offset the deficiency caused by the withdrawal of money from productive and consumptive uses into the stock market. The demand for short-term loans at high rates of interest became accordingly so strong as to induce many businesses to use their surplus profits for the purpose of lending to speculators instead of putting them back into circulation. Money was attracted to New York from all parts of the globe, either for direct investment in the hope of speculative profits or for lending to speculators at higher rates of interest than could be obtained in ordinary industrial or commercial enterprise. The general upshot was a

1 See p. 68 below.
3 See pp. 64-66 below.
condition of inflation. When the bubble was pricked in October 1929, there was inevitably a rapid shrinkage of consuming power. People who had been living on a scale quite disproportionate to their real incomes were suddenly reduced to a much lower standard. Many of them were ruined altogether; others were forced to limit their consumption severely in order to repay loans, which the value of their securities no longer covered. In fact, the prosperity level was seen to have been largely fictitious, and the production which had been called forth was found to be considerably in excess of the normal absorptive powers of the home market.

INSTALMENT PURCHASING

Another factor tended to accentuate the position. In order to maintain production, selling on credit had been widely adopted as a method of stimulating sales, while banks and financing corporations encouraged consumers to buy beyond their incomes by offering them loans secured only by their future earnings. It is unnecessary to enter deeply into the ethics or the economics of instalment buying or of consumers' credit. It may be that as long as prices are stable and business can be maintained steadily at a high level, a moderate expansion of credit in anticipation of income can be effected without any serious consequences. As soon, however, as a serious disturbance occurs, it is evident that large numbers of buyers of luxury articles on credit, whose incomes have been diminished through unemployment, underemployment or shrinkage of profits, find themselves either unable to meet their obligations, or only able to meet them by reducing their normal purchases of other and more necessary articles. In other words, the anticipation of income cannot increase income. When depression supervenes, it is found to have exhausted buying power to the extent of anticipation; and in the meanwhile it has stimulated productive power to an artificial level. It thus widens the unbridged gap between production and consumption which is characteristic of every period of recession. The whole process is clearly summarised by Mr. Melvin A. Traylor, President of the First National Bank of Chicago, in these words 1:

1 Melvin A. TRAYLOR: The Price of Prosperity, p. 60. An address delivered before the Salesmanship Club of Dallas, 29 Jan. 1931.
expressed largely in the mechanisation of industry with its consequent increase in labour efficiency and output and reduced cost per unit of commodity. It requires no genius to see if instalment buying were practised by all the people for a period of five years, with each year's purchases anticipating the normal buying power of two years, that in five years the total normal buying power from income would be substantially exhausted. After all, the real measure of purchasing power is income.”

**Psychological Factors**

To these two causes of the "under-consumption", which set in at the end of 1929 and persisted all through 1930, may be added the avoidance of spending due to the general lack of confidence. This again is a natural phenomenon in all times of depression, but it was greatly aggravated by the precipitous transition from the boom conditions of 1929 to the slump conditions of 1930. A corresponding transition from exaggerated boom-psychology to exaggerated slump-psychology might in such circumstances be expected. The result of these "exaggerated fears and pessimism", as the President qualified them, was to prevent people who were able to spend from doing so. Workmen still in employment turned their thoughts to saving in fear of the enforced idleness which had overtaken so many of their fellows. They reduced their consumption below its usual level. Persons dependent on business profits did the same, as they saw them dwindling or disappearing. Even those whose incomes were untouched became infected by the general uncertainty and listened to the promptings of prudence more readily than to the "Buy now" slogan of the salesman. Although large sums of money had been disentangled from speculation and lay available for productive or consumptive uses, they were not brought into circulation owing to the psychological hesitancy bred by the sudden collapse of a seemingly stable condition of prosperity. The undoubted importance of this element in further diminishing consumption emphasises the difficulty of evolving a perfectly reliable technique of balance in the face of waves of human sentiment, which no banking system and no governmental agency are capable of regulating. Mr. Reginald McKenna, Chairman of the Midland Bank, summed up this aspect of the American depression as follows¹: "Between 1928 and 1930 the volume of money in America has

been approximately stable, yet the maintenance of total money supplies, even though supplemented by a vast release of funds from speculative activity, has failed to prevent a precipitous fall in prices, accompanied by disastrous trade depression. Briefly, we may say that from 1921 to 1928 the growing supplies of money were largely diverted into speculation; between 1928 and 1930 the existing supplies of money were immobilised to a great extent, and the rate of turnover drastically reduced, as a result of the psychology of fear which developed from the stock market collapse. American monetary policy failed to maintain prosperity, first because it could not control the use of money, and subsequently and as a consequence because it could not persuade the public to use the money it provided.

The factors which have hitherto been touched upon are in the main factors which served to aggravate the depression once it had set in rather than factors which actually caused it. The decline in commodity prices became observable three months before the collapse of stock values. The fall in prices affected other countries besides the United States, but its effects in the latter were more severe, because of the catastrophic devaluation of industrial securities, aggravated by the consequences of instalment purchasing and by the excessive pessimism engendered by the extraordinary suddenness and depth of the depression itself. All these influences culminated in acute unemployment and under-employment, which in their turn still further diminished consumption.

WAGES AND CONSUMPTION

The working population must in any country form the bulk of the home market. Any considerable restriction of its purchasing power through absence of employment or diminution of earnings is bound to be quickly reflected in the output of industry. This is particularly true in the United States, where the introduction of mass-production methods postulated an equivalent development of mass consumption. From this axiom "the doctrine of high wages" followed as a logical and necessary consequence. As the productivity of the worker was increased by the application of mechanical methods, he was enabled to earn higher wages and thus to become a more effective consumer of the goods which mechanical efficiency was able to produce in ever-increasing quantities. Clearly there could be no adequate outlet for articles which did not fall in the category of necessities, but which could
only be profitably produced if their sale was assured in hundreds of thousands, unless the earnings of the wage earner and the profits of the farmer were sufficient to provide them with a margin, which would enable them to acquire such articles over and above their food, their lodging, their clothes and the other indispensables of life.

This fact had become generally recognised by American industrialists during the last five years. Though the original impulse towards higher wages may have been largely attributable to labour scarcity, their maintenance was seen to be an essential element in the industrial structure reared on large-scale production. When bad times came, the bulk of American employers had been converted to the doctrine of Mr. Ford that "every depression is a challenge to every manufacturer to put more brains into his business — to overcome by management what other people try to overcome by wage reduction". The widespread adoption of this attitude produced a marked contrast between the measures used for dealing with the situation and those applied in the depression of 1921. At that time wage-cutting as a remedy was universal and popular. In 1930 it was exceptional and unpopular. Though applied more or less surreptitiously in many instances, it was generally condemned not only by the trade union movement determined to preserve, if possible, the high standard of living to which American labour had become accustomed, but also by the majority of employers convinced that the maintenance of that standard was vital to the recovery of American industrial prosperity. The President was accordingly able to inform Congress in December that "we have not witnessed the usual reductions of wages which have always heretofore marked depressions. The index of union wage scales shows them to be to-day fully up to the level of any of the previous three years. In consequence, the buying power of the country has been much larger than would otherwise have been the case."

Although it is no doubt true that wage rates were on the whole generally maintained throughout 1930, it is equally certain that buying power was enormously diminished. The total exclusion from wage-earning of some 6 million workers, together with the diminished earning power of perhaps another 2 million or more who were only working part-time, inevitably meant a greatly reduced demand for a great number of manufactured products. Of this, the drop in the pay-roll index, shown in

table II, is significant enough. A well-known statistical bureau calculated that between 1929 and 1930 there was a decline of 20 per cent. in aggregate wages, representing a loss of purchasing power of $8,853,000,000. On the basis of these figures, the average rate of annual income for the wage and salary earner was reduced from $1,700 to $1,580, a reduction operating practically throughout that section of the population whose earnings are largely devoted to the buying of consumptive goods, numbering altogether more than 22 1/2 million people, among whom the farming population is not included. It follows, as a necessary corollary, that a higher proportion of the wage earners' income was being spent on food, housing and clothing, and a smaller proportion on non-essentials, among which are many of the staple products of mass production.

If this state of affairs has been reached without any substantial reduction of wage scales, the conclusion appears to be indicated that not only the rate of wages has to be considered, but also the aggregate income of the whole body of wage earners, if a true estimate is to be formed of the relation between wages and consuming power. In other words, it is possible to maintain high wage rates, as was the case in the United States during 1930, but this measure may still be inadequate to maintain the market if there is a large section of the wage-earning population who are out of work, or only partially employed. If 100 persons are normally employed at the rate of $20 a week, their aggregate purchasing power would be $2,000. If 50 of them are dismissed and the remainder continue to be employed at the same rate, their aggregate earnings will be $1,000, which would still have been their aggregate income if the whole 100 persons had remained in employment but had suffered a wage cut of 50 per cent.

From examples such as these, it is sometimes argued that it is not so much the rates of wages that matter as the number of persons enabled to earn them, from which it is sometimes concluded that reductions in wages would necessarily increase the volume of employment. American experience seems to throw some light on these controversies. In the first place, it is clear that the market cannot be maintained unless not only wages are adequate to enable the workmen to purchase the products of mass production over and above the necessities of life, but unless a sufficient number of workmen are in employment and actually earning those wages to avoid any substantial reduction in the demand. Secondly, it is equally clear that if there were a general reduction in the American standard
of living, so that a substantially higher proportion of the workers' earnings had to be devoted in the future as in pre-war days to the purchase of necessities, the foundation on which large-scale industry has been built up in the United States would be largely undermined. Even a reduction of unemployment from 23 per cent. to 5 per cent. of the industrial population would not serve to restore the purchasing power necessary to enable the wage-earning population to purchase luxury and semi-luxury articles in large quantities, unless their wages afforded them a sufficient margin for the purpose after they had obtained the prime necessities. It appears, therefore, that both a high level of employment and a high level of real wages are necessary for the maintenance of the American industrial fabric. It is for that reason that both employers and trade unions are opposed to any general reduction of wage rates, because they fear that once the standards which have been established during recent years are lost, they will not easily be recovered, and because they realise that it is on the maintenance of those standards that the prosperity both of the American worker and the American industrialist ultimately depend.

It is with these considerations in his mind that the American employer is seeking to discover other expedients for effecting the reduction in prices necessary to attract the hesitating purchaser to re-enter the market. In most cases he probably decides to forgo a larger or smaller part of his profits, for the moment probably the larger part; but in most cases again this measure will probably be found insufficient to meet the situation. He will therefore look for devices other than wage reductions by which he can lower costs. He may be able to apply better methods of production which will economise the use of raw material, or he may be able to reorganise his purchasing and his sales on a less costly but equally effective basis. Even economies in these directions will in many instances be inadequate, and if he is still to avoid cutting wages, his only alternative is to cut employment. In other words, he adopts labour-saving devices, mechanical and other, which enable him to obtain an equal or a greater output with a smaller number of men, and therefore at a lower cost of production, although the labour still employed is still paid at the old rate. By so doing he is enabled to make his product more attractive to the purchaser by offering it at a lower price, and in the majority of instances he will probably at the same time augment the quantity which he is able to produce. This process, however, will not benefit him, unless there is a sufficient number of purchasers who can afford to
buy the article which he so offers. The progress of mechanism and other forms of rationalisation has been so rapid in the United States during recent years that the question has now seriously arisen whether it has not caused production to outstrip consumption, whether by decreasing industrial employment it has not simultaneously decreased the market for industrial products, whether, in fact, mechanical efficiency has not reached an uneconomic point. This is one of the most far-reaching problems suggested by the American industrial situation, nor is its scope by any means limited to the United States. It is confronting every other industrial country in a greater or lesser degree and for that reason is worthy of special attention.

**FARM PRICES AND CONSUMPTION**

Its difficulty and magnitude are considerably aggravated by the creation of a similar situation in agriculture.

As has already been suggested, the decline of agricultural prices is one of the most marked features of the prevailing depression. Between 1922 and 1928 the prices of farm products had been fairly stable with a slightly upward tendency, while the retail prices of the articles required by the farmer for production and for living purposes had likewise maintained a steady course. Between August 1929 and May 1930, however, the index of farm prices fell from 143 to 124 (average August 1909-July 1914 = 100), though during the same period the cost of the farmer's needs showed only a slight decline (155-153)\(^1\). Between 1925 and April 1930 the sale value of grain had declined by 46 points (156-110) and that of cotton by 57 points (177-120), so that the producers of those staple products were particularly impoverished. By the end of the year the disparity had still further increased. In other words, the farmer's buying power was seriously reduced. He had to sell more bushels of grain or bales of cotton in order to buy his plough, his bed or his motorcar than in previous years.

As the farm population of the United States exceeded 27,000,000 in 1930, it represented a considerable section of the buying public, on whose purchasing power the maintenance of mass

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\(^1\) *The Agricultural Crisis* (League of Nations, C. 612. M. 238. 1930. 11.): "U.S.A." by Loyd V. Steere, pp. 75 et seq.
production in industry depended. The fall in farm prices meant to the farmer what loss of earnings meant to the wage earner — the obligation to reduce his consumption of non-essentials and the allocation of a greater proportion of his budget to the necessities of life. The whole agricultural situation will require further consideration on account of the exodus from the land during the last ten years, during which time it is calculated that there has been a net decrease of the rural population to the extent of about 3,800,000 people. This important phenomenon is ascribed partly to economic causes, partly to the displacement of farm labour by machinery. It appears that not only has the decline of the farmer's consuming power played a substantial part in restricting the outlet for manufactured goods, thereby causing unemployment in the cities, but that the steady migration of the farming population to the towns has increased the pressure on urban employment, thereby contributing further to swell the number of the unemployed. These two factors in the general situation clearly merit some further investigation.

FOREIGN CONSUMPTION

The foregoing consideration of the unemployment problem from the angle of consumption has brought out some of the factors which produced or aggravated it within the United States. To these must be added the failure of consumption in other parts of the world, which closed the outlets for the American surplus of foodstuffs, raw materials and manufactured articles in foreign markets. One of the most striking developments of the post-war period is to be found in the expansion of the overseas trade of the United States. The United States' share of world trade amounted to 11.17 per cent. in 1913, but had increased to 14.21 per cent. in 1927. In the latter year, the value of American exports was greater than in 1913 by 194.4 per cent.

Whereas the total value of American exports had amounted on the average to $2,243,000,000 during the years 1910-1914, it had increased to $3,971,000,000 in 1922, though the difference was due rather to the rise in prices than to a growth of volume.

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1 Ibid., p. 77.
3 For these and subsequent figures, see Recent Economic Changes, pp. 714-719.
During the succeeding seven years, however, expansion both of value and volume continued steadily. By 1928 the total value had reached $5,321,000,000. A large part of this sum represents the sale of foodstuffs (wheat $120,000,000; fruits $128,000,000; meats $61,000,000), and raw materials (cotton $920,000,000; copper $140,000,000; timber products $108,000,000; light oils $238,000,000); but the most noticeable advances have been in the case of manufactured articles (automobiles $264,000,000; machinery $497,000,000; iron and steel $262,000,000, and cotton manufactures $135,000,000). The exportable surplus found its markets all over the world. As might be expected, Europe as the richest continent took the largest part, more than $1,000,000,000 more in 1928 than in 1910-1914; but exports to Canada, Latin America and Asia increased in even greater proportions, though not in such great quantities. During the same period American imports also increased considerably, but not sufficiently to even the balance. The United States continued to have a heavy margin in its favour. This state of affairs was only made possible by the large amount of American money lent abroad. Between 1922 and 1928 American loans and investments abroad mounted steadily, and simultaneously export trade expanded in a strikingly parallel curve.

As Professor J. Harvey Rogers points out at the conclusion of his survey of foreign trade for the Committee on Recent Economic Changes, "in the last resort our foreign loans and investments, combined with heavy and increasing tourists' expenditures, were making possible the continuance of our favourable balances of trade". If this general statement is true, it may furnish a clue to one of the major causes of the decline of American exports. During the year 1929 the net outflow of capital (long and short term) was only $373,000,000 as compared with $934,000,000 in 1928 and $695,000,000 in 1927. Whatever the causes, however, it is certain that a sharp shrinkage of American exports began in 1930, and continued progressively throughout the year. This fact may be seen from the following table.

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1 *Recent Economic Changes*, p. 755. For a full discussion of the correlation between foreign loans and exports, see pp. 744-756.
2 U.S. DEPT. OF COMMERCE: *Balance of International Payments*. 
TABLE VII. — TOTAL AMERICAN EXPORTS BY MONTHS

(Values in thousands of dollars)

<table>
<thead>
<tr>
<th>Month</th>
<th>1929</th>
<th>1930</th>
<th>Per cent loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>$488,023</td>
<td>$410,849</td>
<td>15.8</td>
</tr>
<tr>
<td>February</td>
<td>441,750</td>
<td>348,852</td>
<td>21.0</td>
</tr>
<tr>
<td>March</td>
<td>489,851</td>
<td>399,550</td>
<td>24.6</td>
</tr>
<tr>
<td>April</td>
<td>425,284</td>
<td>331,732</td>
<td>22.0</td>
</tr>
<tr>
<td>May</td>
<td>355,013</td>
<td>320,035</td>
<td>16.9</td>
</tr>
<tr>
<td>June</td>
<td>393,186</td>
<td>294,658</td>
<td>25.1</td>
</tr>
<tr>
<td>July</td>
<td>402,861</td>
<td>266,651</td>
<td>33.8</td>
</tr>
<tr>
<td>August</td>
<td>380,565</td>
<td>297,765</td>
<td>21.8</td>
</tr>
<tr>
<td>September</td>
<td>437,163</td>
<td>312,206</td>
<td>28.6</td>
</tr>
<tr>
<td>October</td>
<td>528,514</td>
<td>326,893</td>
<td>38.1</td>
</tr>
<tr>
<td>November</td>
<td>442,254</td>
<td>289,007</td>
<td>34.7</td>
</tr>
<tr>
<td>December</td>
<td>426,551</td>
<td>275,193</td>
<td>35.5</td>
</tr>
<tr>
<td></td>
<td>5,240,995</td>
<td>3,843,391</td>
<td>26.7</td>
</tr>
</tbody>
</table>

It is evident that such a considerable reduction of exports during a single year must denote a corresponding reduction in employment. The importance of the export trade of the United States, great though it is, may be contested, however, on the ground that its aggregate value does not greatly exceed 10 per cent. of the output of exportable articles and represents an even smaller fraction of the total American production. It may be answered, however, that a difference of 10 per cent. is often sufficient to turn profit into loss. Professor Rogers cites the case of cotton, where "an increase of 10 per cent. in consumption might often mean for a whole section of the country the difference between genuine prosperity and deep depression. . . . Similarly an increase in the foreign sales of machinery or of automobiles, by stimulating activity in those industries and in turn in those of their suppliers, might confidently be expected to bring important but as yet unmeasured prosperity to a considerable portion of American industry."  

The fact therefore that the United States now has an exportable surplus of agricultural, mineral and manufactured products means that a section of the wage-earning population is strictly dependent on foreign customers for its livelihood. It also means that in the export industries prices and wages are determined not solely in relation to American standards, but partly, and in some cases wholly, by reference to world prices and world standards.

1 Recent Economic Changes, p. 755.
This important fact is now being realised by industrialists and trade union leaders as modifying and complicating their problems. Mr. Owen D. Young, for instance, has declared that the marketing of the American surplus is "our most vital and immediate economic question", and he points out that "the consuming power of the world has to be raised but little to take care of the surpluses which cause so much disaster to ourselves". To achieve this end he advocates an economic policy looking "to the economic development of the world as a whole and the improvement of living standard and consuming power of peoples everywhere". The same thought appears in an official statement by the American Federation of Labor, insisting that "we depend on foreign customers for an important part of our trade and the fate of wage earners abroad is closely linked with ours".

Utterances such as these imply the recognition of the United States' new position in the world. Not only is it dependent on overseas commerce for maintaining a substantial proportion of its wage earners and farmers in employment, but inasmuch as it has now become a creditor country, its exports are no longer balanced by debts owing to foreign bondholders, as was the case before the war. The position is now reversed. Instead of making payments abroad, the United States now receives them both in respect of public debts and private borrowings. But the maintenance of a high tariff has placed obstacles in the way of the inflow of foreign goods in payment of these obligations and of American exports, with the result that in so far as American credits have not covered the difference, it has had to be met by the despatch of gold to the United States. The general effect of these operations is thus summed up by Professor Harvey Rogers: "The heavy and rapidly increasing payments required of foreigners, combined with the maintenance of our high tariff policy, are forcing slowly and gradually, but none the less surely, an ever wider separation of prices at home and abroad, with a resulting rapid increase in the expenditures of American tourists abroad and the migration of American industry to many foreign countries." This pregnant sentence outlines a host of problems. It raises such questions as whether a higher standard of living can be maintained permanently in the United States in comparison with the rest of the world,

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1 The Problem of Our American Surplus, June 1930.
3 Recent Economic Changes, p. 754.
whether a high tariff is ultimately compatible with a flourishing export trade in a creditor country, whether the competition of American factories in foreign lands will not restrict the outlets for goods produced in the United States, and with them the avenues of American employment on American standards. The materials for an answer on these matters are not yet available, but a close examination of the phenomena of the present depression, as they become more clearly revealed, may go far to supply them. To dilate further upon these matters would lead to the exploration of regions far beyond the borders of this study. But they could not be passed by without some cursory mention, as the problem of foreign markets is now an essential part of the general problem of securing sufficient consumptive power to balance the greatly enhanced productive capacity of American industry and agriculture.

The foregoing rapid survey of some of the causes making for a decline of consumption has no pretension to completeness or finality. No attempt has been made to weigh these various causes against each other with a view to determining their relative importance. That can only be done by prolonged economic analysis when all the facts are available, and even then the conclusions drawn by different schools of economists may be expected to differ considerably. For the purposes of this study the important point is to determine roughly how far the responsibility for unemployment may be assigned to the employer himself and how far it must be referred to factors wholly or chiefly outside his control. This fundamental question will come up for further consideration in the last chapter. For the present it is sufficient to note that there were a number of factors of first-rate importance combining to derange the equilibrium between production and consumption, over which the individual manufacturer could exercise little or no influence. From this it does not of course follow that there were not other factors tending in the same direction which were generated by the manner in which industry itself had developed in recent years. It has already been seen that wages policy is an essential element in the problem of finding an adequate outlet for increasing production. In order that the market shall keep pace, it is necessary not only that the wage-earning population should enjoy a standard of living above the subsistence level, but that its employment should be sufficiently
regular and evenly distributed to maintain its demand at a volume capable of absorbing the goods produced by industry. The next question which falls to be considered is therefore how far the development of American industry in recent years has tended to increase or to diminish the volume of regular employment in normal times, apart from the violent fluctuations to which employment is necessarily subject in times of depression and over which the individual employer can exercise very little restraining influence.
CHAPTER III

MACHINERY AND EMPLOYMENT

Since the dawn of the first industrial revolution the effect of machinery on employment, both from the economic and the social standpoints, has been constantly debated. Owing to the great strides made by scientific invention in recent years the debate has been revived with renewed vigour. It is true that it is now conducted in the light of greater knowledge than was available a century ago. Since then the beneficial effect of mechanical progress on the material well-being of all sections of the population has been amply proved by experience, with the result that the opposition of the workers to the substitution of machine for manual labour is no longer so widespread or so vehement as in bygone days. Perhaps for this reason there is now a tendency to overlook the immediate consequences, both economic and social, of the displacement of labour, or at any rate to discount them as negligible in comparison with the ultimate benefits conferred by reducing labour costs. Indeed, it is now often assumed that the reduction of employment through growth of machine production is an impossibility, as being contrary both to sound economic doctrine and to the teachings of economic history. In view of the undoubted fact of a great deal of unemployment, conveniently designated as "technological" in the United States, caused by the replacement of men by machines, it may be timely to re-examine some of these assumptions.

SOME THEORETICAL CONSIDERATIONS

The classical economists demonstrated that, in the words of J. B. Say 1, "the multiplication of a product commonly reduces its price, that reduction extends its consumption; and so its production, though become more rapid, nevertheless gives employment to more hands than before " . As an abstract proposi-

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tion this is no doubt true, but if it is related to time it often is not true in particular cases.

Ricardo pointed out that while the introduction of machinery could only be beneficial as increasing the national wealth in certain circumstances, it might nevertheless "at the same time render the population redundant and deteriorate the condition of the labourer". If a larger proportion of capital were diverted to fixed capital in the shape of machinery and a smaller proportion appropriated to circulating capital or wages, a certain amount of redundant labour would be created, for which no employment would be available until, after an interval that might be considerable, fresh avenues of employment were created by the use of the savings derived from the increased net profits accruing from the production of the machine. From this he concluded that in some cases "the opinion entertained by the labouring class that the employment of machinery is frequently detrimental to their interests is not founded on prejudice and error, but is conformable to the correct principles of political economy." In his view, however, such an eventuality was only likely to arise in cases where "improved machinery is suddenly discovered and extensively used", whereas its introduction is as a rule not effected by diverting capital from its actual use but by the utilisation of fresh capital accruing from savings, and therefore only comes about gradually.

A similar doctrine was developed by J. S. Mill, who again emphasised the importance of the time factor and who also brought out the importance of the worker as a consumer in this striking passage: "All attempts to make out that the labouring classes as a collective body cannot suffer temporarily by the introduction of machinery, or by the sinking of capital in permanent improvements, are, I conceive, necessarily fallacious. That they would suffer in the particular department of industry to which the change applies, is generally admitted, and obvious to common sense; but it is often said, that though employment is withdrawn from labour in one department, an exactly equivalent employment is opened for it in others, because what the consumers save in the increased cheapness of one particular article enables them to augment their consumption of others, thereby increasing the

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demand for other kinds of labour. This is plausible, but, as was shown in the last chapter, involves a fallacy, demand for commodities being a totally different thing from demand for labour. It is true, the consumers have now additional means of buying other things; but this will not create the other things, unless there is capital to produce them, and the improvement has not set at liberty any capital, if even it has not absorbed some from other employments. The supposed increase of production and of employment for labour in other departments therefore will not take place; and the increased demand for commodities by some consumers will be balanced by a cessation of demand on the part of others, namely, the labourers who were superseded by the improvement, and who will now be maintained, if at all, by sharing, either in the way of competition or of charity, in what was previously consumed by other people.

Mill goes on to say that, though theoretically mechanical and other improvements may thus temporarily diminish employment, he doubts whether in practice they produce this consequence to the workers as a whole; but he adds "they would do so if they took place suddenly to a great amount. . . But improvements are always introduced very gradually and are seldom or never made by withdrawing circulating capital from actual production, but are made by the employment of the annual increase." He finally concludes his examination of the subject by showing that, while the ultimate benefits of machinery to the workers are incontestable, "this does not discharge Governments from the obligation of alleviating, and, if possible, preventing, the evils of which this source of ultimate benefit is or may be productive to an existing generation. If the sinking or fixing of capital in machinery or useful works were ever to proceed at such a pace as to impair materially the funds for the maintenance of labour, it would be incumbent on legislators to take measures for moderating its rapidity: and since improvements which do not diminish employment on the whole almost always throw some particular class of labourers out of it, there cannot be a more legitimate object of the legislator's care than the interests of those who are thus sacrificed to the gains of their fellow-citizens and of posterity."

These passages have been cited at length, because they are

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1 Author's italics.
interesting as showing that one of the great economists of the nineteenth century recognised not only that mechanisation might produce unemployment, but unemployment of considerable dimensions and duration under certain circumstances, so much so indeed as to warrant State interference with the normal course of economic evolution. Though some of the arguments by which he supported his conclusions have been discarded, the history of industrial development during the last hundred years has borne out the general soundness of Mill's analysis. Inventions and mechanical improvements followed one another, rendering production of all kinds of commodities cheap and abundant, which in former times were reserved exclusively for the wealthy. The consequence was a general and constant advance in the standard of life of the workers, which could not have been achieved by any other means in so short a time.

Writing nearly a century ago, Mill's contemporary, Lord Macaulay, prophesied¹: "It may well be, in the twentieth century . . . that labouring men may be as little used to dine without meat as they now are to eat rye-bread; that sanitary police and medical discoveries may have added several more years to the average length of human life; that numerous comforts and luxuries which are now unknown or confined to a few may be within the reach of every diligent and thrifty working man." This forecast has been literally fulfilled in Great Britain, the United States and other industrial countries. It is unnecessary to labour this point, or to prove that simultaneously with this material progress there has been a steady expansion of employment in industry. In a large number of instances, perhaps the majority, the introduction of new machinery has been sufficiently gradual either to enable it to be effected without serious displacement of labour, or to render the creation of fresh jobs possible in the same industry to meet the increased demand caused by lower prices. In other cases there has no doubt been considerable displacement of labour, which has usually meant an interval of unemployment with its inevitable hardships, before those who were thrown out of work could be reabsorbed in other branches of industry. Nevertheless, it is broadly true that the rate of improvement was not so rapid as either to diminish the total number of persons employed in industry at any time or to create

so large a volume of "technological unemployment" as to render it an urgent problem over a wide range of industries at one and the same moment. In other words, the moderate rhythm which Mill postulated as necessary to avoid purchasing the ultimate benefits of mechanical improvement at too high an immediate price was on the whole observed. The balance between the rate of displacement and the rate of reabsorption of the workers was generally maintained, despite the hardship frequently imposed on individuals through temporary idleness caused by transfer from one job to another. Experience prior to the war may be generally taken to have borne out the accepted view that "though inventions and improvements injurious to the real income of the working classes may occur, they will not occur often".  

It may be asked, however, whether under modern conditions the operation of the rules which held good during the nineteenth century may not have been to some extent modified. Without at all suggesting that their ultimate validity is not still as great as before, it seems nevertheless pertinent to enquire whether through the sheer rapidity of mechanical, chemical and electrical invention, the volume of displacement does not tend to be greater at given moments and to be diffused simultaneously over a wider range of industries, and whether consequently the process of reabsorption into the same or other industries is not rendered slower and more painful than in earlier times. If this were true, the amount of "normal" unemployment due to technological causes would be greater and would constitute a much more recognisable and serious phase of the unemployment problem than in pre-war days. The United States offers the widest field of investigation and provides considerable statistical and research material on which to found a judgment upon such a hypothesis; but though this essay is confined to an examination of American experience, there are symptoms in other highly industrialised countries, such as Germany and to a lesser extent Great Britain, which seem to suggest that there also a similar movement is taking place.

**Pre-War and Post-War**

The first step is to observe how far it was true before the war that the improvement of industrial processes, which was certainly proceeding uninterruptedly, showed signs of diminishing industrial

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employment. The following table seems to indicate that from 1889 until the end of the war there was a steady increase of employment in manufactures and transportation as the complement of increasing efficiency.

TABLE VIII. — EMPLOYMENT IN MANUFACTURE AND TRANSPORTATION

(In thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufactures</th>
<th>Steam railroads</th>
<th>Electric railways</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1889</td>
<td>3,624</td>
<td>701</td>
<td>64</td>
<td>4,389</td>
</tr>
<tr>
<td>1894</td>
<td>3,668</td>
<td>749</td>
<td>84</td>
<td>4,501</td>
</tr>
<tr>
<td>1899</td>
<td>4,575</td>
<td>933</td>
<td>115</td>
<td>5,623</td>
</tr>
<tr>
<td>1904</td>
<td>5,220</td>
<td>1,280</td>
<td>168</td>
<td>6,668</td>
</tr>
<tr>
<td>1909</td>
<td>6,343</td>
<td>1,514</td>
<td>221</td>
<td>8,078</td>
</tr>
<tr>
<td>1914</td>
<td>6,706</td>
<td>1,401</td>
<td>257</td>
<td>8,364</td>
</tr>
<tr>
<td>1919</td>
<td>8,581</td>
<td>1,649</td>
<td>262</td>
<td>10,492</td>
</tr>
</tbody>
</table>

Extracted from Real Wages in the United States, p. 440. This table does not relate to those attached to manufacture and transportation, but to the numbers actually employed.

A similar conclusion is reached as regards manufactures only by Dr. Leo Wolman. For the building trades it is more difficult to obtain accurate statistics, as it is doubtful whether all those recorded by the census as belonging to these occupations were in fact engaged in construction, while the amount of seasonal unemployment renders the computation of the numbers actually employed somewhat uncertain. When allowance is made for these two factors, Professor Douglas's calculations show that there was on the whole a steady growth of the numbers employed from 1890 to 1910, followed by some decline during the war years, probably due to the slackening of constructional activity. Although the pre-war statistics are not as full or trustworthy as those available for the last ten years, their evidence uniformly suggests an expansion of employment moving more or less parallel to the expansion of production.

Since the war, however, this parallel advance does not appear to have been preserved. Although the output per worker continued to increase at an accelerated rate, the volume of employment in productive industry tended actually to diminish. A first evidence of this change of rhythm may be seen in table IX.

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1 Recent Economic Changes, p. 450.
2 Real Wages in the United States, pp. 452-455.
TABLE IX. — INCREASE IN PRODUCTIVITY OF MAJOR BRANCHES OF INDUSTRY

<table>
<thead>
<tr>
<th>Period and branch</th>
<th>Number of workers (thousands)</th>
<th>Index for end of period (beginning=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning of period</td>
<td>End of period</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1898–1900 to 1908–1910:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>10,700</td>
<td>11,400</td>
</tr>
<tr>
<td>Mining</td>
<td>600</td>
<td>1,010</td>
</tr>
<tr>
<td>Manufactures</td>
<td>5,300</td>
<td>7,430</td>
</tr>
<tr>
<td>Railways</td>
<td>970</td>
<td>1,575</td>
</tr>
<tr>
<td>Total or average</td>
<td>17,570</td>
<td>21,415</td>
</tr>
<tr>
<td>1908–1910 to 1918–1920:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>11,400</td>
<td>11,300</td>
</tr>
<tr>
<td>Mining</td>
<td>1,010</td>
<td>1,050</td>
</tr>
<tr>
<td>Manufactures</td>
<td>7,430</td>
<td>10,930</td>
</tr>
<tr>
<td>Railways</td>
<td>1,575</td>
<td>2,035</td>
</tr>
<tr>
<td>Total or average</td>
<td>21,415</td>
<td>25,315</td>
</tr>
<tr>
<td>1918–1920 to 1924–1926:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>11,300</td>
<td>10,700</td>
</tr>
<tr>
<td>Mining</td>
<td>1,050</td>
<td>1,050</td>
</tr>
<tr>
<td>Manufactures</td>
<td>10,780</td>
<td>9,810</td>
</tr>
<tr>
<td>Railways</td>
<td>2,035</td>
<td>1,860</td>
</tr>
<tr>
<td>Total or average</td>
<td>25,165</td>
<td>23,420</td>
</tr>
</tbody>
</table>

1 Extracted from table 21 of Recent Economic Changes, p. 452.
2 The differences in the figures given for number of persons employed in manufactures for 1919 and 1925 are due to changes in the size of establishments covered, and to certain exclusions of industries formerly reported.

These figures show that whereas between 1918–1920 and 1924–1926 the productivity of the worker in manufacture increased by 34.5 per cent., the number of persons employed diminished by 7.5 per cent. The same phenomenon appears in varying proportions in the case of railways, mining and especially in agriculture, to which further reference will be made later. It is, however, in manufacturing industry that the increase of productivity per capita is most marked. It might be explained on the ground that output had fallen to a low level by the end of the war and that much renewal of plant and equipment was taking place during the early years after the restoration of industry to a peace footing. Dr. Wolman points out, however, that even if the ratio of increasing productivity of the period 1899 to 1916 had continued, the output per worker would not have reached its 1922 level. Whereas productivity increased by 19 per cent. during the seventeen years ending...
1916, it advanced by as much as 22 per cent. in the nine years ending 1925. It would seem then that some new factor was coming into play over and above the normal modernisation and renewal of worn-out or depleted equipment. The development of the next four years clearly indicates that this was the case. Instead of productivity resuming a more or less steady rate of advance, its acceleration continued, not in one or two industries only, but throughout the greater part of the industrial field. The introduction of mechanical processes and the substitution for hand labour of machines mainly driven by electric power was proceeding apace. Although the older industries were for the most part still expanding, or at least maintaining their production, and although new industries unknown or little developed during the two previous decades had come into full production, manufacturing was still not employing more persons. This is surely a remarkable fact when the size attained by the automobile, rayon, and electrical industries is considered, employing as they did between them about 816,000 people in 1929. It is even more remarkable when it is remembered that during the same period a progressive shortening of hours was taking place. In spite of these factors making for enlarged employment, the number of persons engaged in manufac­
turing was none the less practically stationary despite the increase of output between 1926 and 1929, as may be seen from the employment and productions returns.

<table>
<thead>
<tr>
<th>Year</th>
<th>Wage earners (average number)</th>
<th>Value added by manufacture (thousands of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>9,039,171</td>
<td>24,899,005</td>
</tr>
<tr>
<td>1921</td>
<td>6,944,135</td>
<td>18,326,832</td>
</tr>
<tr>
<td>1923</td>
<td>8,776,646</td>
<td>25,845,859</td>
</tr>
<tr>
<td>1925</td>
<td>8,381,511</td>
<td>26,771,373</td>
</tr>
<tr>
<td>1927</td>
<td>8,349,755</td>
<td>27,586,210</td>
</tr>
<tr>
<td>1929</td>
<td>8,742,761</td>
<td>31,087,001</td>
</tr>
</tbody>
</table>

From this table it will be seen that although production was steadily increasing, the number of persons employed showed a

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1 Recent Economic Changes, p. 456.
2 Ibid., p. 126. While the amount of other types of power employed remained practically stationary, electric energy in factories was increased by 14 million horse-power between 1919 and 1927.
clear tendency to decline rather than to increase. The years 1919 and 1921 may be excluded as being abnormal, as in the former a good deal of the war production was still continuing, and the latter was a year of depression. Between 1923 and 1927 there was a decline of more than 400,000 in the number of persons employed, although the value added by manufacture had increased by nearly $2,000,000,000. By 1929 the number of persons employed had still not regained the 1923 figure, although the value added was nearly $6,000,000,000 greater. In every decade before the war the number employed had increased not only absolutely, but relatively to the whole population. During the 1923-1929 period the number had on the contrary decreased, not only relatively to the whole population, but absolutely in spite of a greatly increased productivity. What occurred in manufacturing was paralleled in mining and railways. While the output per miner increased from 40 to 45 per cent. between 1919 and 1929, employment declined by 7 per cent. While railway efficiency measured in ton-miles was considerably enhanced, the number of railwaymen diminished by 300,000 or 15 per cent. 1

RATIONALISATION IN INDUSTRY

In order to visualise more clearly the causes which have contributed to bring about this unprecedented result, it may be useful to give a few illustrations of the rapidity with which production has been multiplied by mechanical means. What is striking is not that sweeping economies in the use of labour have been effected in certain industries, but that the process has been going on simultaneously in practically every industry. Of this general fact there can be little doubt. Automatic processes have greatly reduced the amount of labour necessary for the stoking of furnaces, the loading and unloading of ships, the operation of railways, the printing of books and newspapers, the manufacture of steel, of motor-cars, of rubber tyres, of sheet glass and bottles, of cigars and cigarettes, of cotton cloth, and a hundred other articles. The construction of roads and canals has been rendered more rapid and less costly by the use of machines for excavating, tarring, concreting and other processes done by hand only a few years ago. To quote a few typical individual cases 2:

"The American Sugar Refining Company, by installing automatic packing and handling equipment, have made a saving of one-half on labor; Swift and Company save $125,000 a year on an overhead trackway which connects all their departments; the Champion Coated Paper Company reduced their labor force 93 per cent. when they introduced skids for loading box cars; the American Seating Company reduced their handling cost per man-hour from 17 cents to 9 cents when they installed several varieties of handling equipment.

"A steel plant which was able to cut the number of men unloading pig iron from 128 to 2, charging furnaces from 14 to 2, open hearth operation from 40 to 1, has worked a revolution. A foundry which reduced its crew handling materials to the cupola from 44 to 8 men and saved $16,700 in labor cost in 7 months both cut its costs and contributed to a labor displacement situation that may easily become a vital social problem. A factory in Wisconsin is doing 25 per cent. more work to-day than four years ago, with half as many employees, and the reduction has been effected almost entirely through the introduction of automatic or nearly automatic machinery, serialized so that the product goes through many stages."

Calculating and ledger machines have invaded banks and commercial offices to undertake the work of highly trained clerks. Steel sheets can now be turned into motor-chassis almost without hand labour. Whereas only a few years ago it required 2,000 men to turn out 10,000 chassis a day, 200 men can now do the work. Sewers can now be constructed as fast by thirty-seven labourers with thirty-three machine operators as formerly by 7,000 men wielding pick and shovel ¹.

It would be easy to multiply almost indefinitely instances of such mechanical improvements introduced in the last decade. Moreover, apart from mechanisation, greater efficiency in management and the negotiation of mergers have likewise resulted in great economies of labour. By means of time studies, motion studies and other applications of scientific technique to production processes, production has been greatly simplified or accelerated without any change of equipment, thus rendering the amount of labour previously employed unnecessary. Mergers, again, have in many cases led to the concentration of production in the more efficient or more conveniently situated plants at the expense of closing older works altogether and turning off all or most of the employees. Mergers have also led to drastic reduction of headquarters and selling staffs by the elimination of redundant accountants, salesmen and clerical employees, to say nothing of men holding higher managerial positions.

Taking all these factors together, it is not difficult to suppose that, in spite of the great expansion of American industry during the last ten years, there has been a net reduction in factory, railroad and mining employment. Whether that means that there has been not merely a great displacement of labour from these occupations to others, but an actual increase in the average volume of unemployment is a question that may be reserved for later discussion. What is for the moment worth noting is that in spite of the new avenues of employment being created in these three principal branches of industrial activity, there was nevertheless actually an outflow from them of persons compelled to seek their living in other occupations.

RATIONALISATION IN AGRICULTURE

A contraction of industrial employment might in many circumstances be expected to provoke an exodus from the cities to the land in a country of such great agricultural possibilities as the United States, where the density of the population is still inconsiderable as compared with most European and Asiatic countries. Whereas there are 500 persons per square mile in the United Kingdom, 345 in Germany, 322 in Japan, 187 in France, 177 in India, and 153 in China, there are still only 34 in the United States. Nevertheless, there seems little likelihood under present conditions of the surplus industrial population finding an outlet in rural occupations. The reverse tendency is rather apparent. At a time when employment is shrinking in industry on account of the greater productivity per man effected by rationalisation, a similar movement is taking place in agriculture largely due to the same cause.

As has already been mentioned, the rural population of the United States diminished to the extent of nearly 3,800,000 persons during the years 1920-1930. The census of 1920 found 31,000,000 people on the land; the census of 1925 found the number reduced to 28,982,000. Since that date the rural exodus continued, so that in 1930 it was estimated that the total had fallen to 27,222,000.

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1 Even in 1930 there was a net movement away from the farms of 151,000 persons, although more people moved from the cities to the farms than in any year since 1924, and fewer people moved from the farms to the cities. The 1930 census showed that whereas the urban population was 51.4 per cent. of the total in 1920, it was 56.2 per cent. in 1930. (Statement by Department of Agriculture 18 Feb. 1931.)

2 The Agricultural Crisis, p. 77. The census figure for 1930 was not available at the time of writing.
Apart from the lures of city life and the higher wages offered by urban occupations, this drain from the country to the town is ascribed to two principal causes — the depression which has weighed more or less heavily on American agriculture since the war, and the rapid replacement of human and animal labour by machinery. It is unnecessary to go at length into the causes of agricultural depression here. They are mainly traceable to conditions in other parts of the world, which have kept the prices of staple products such as wheat and cotton low. The impoverishment of Europe through the war, the expansion of wheat production in Canada, Australia and Argentina, the re-entry of Russia as a wheat-exporting country, the development of cotton production in Africa and India, are all circumstances which have militated against the prosperity of the American farmer. He has been further handicapped by the decline in the consumption of cereals, wool and cotton in the United States owing to changes in habits of diet and clothing, particularly among the feminine population, aided by the accessibility of more expensive goods and dress materials, as the general level of income rose in the working population. The result of all these adverse conditions was a serious decline in land values and in the value of the capital invested in agriculture. While the farmer's own income was diminishing, his necessary expenditure was not falling in the same proportions, because the prices of the goods which he had to buy showed little decline. Hence mortgage indebtedness increased in eight years by $1,610,000,000, bankruptcies became numerous, and many families were driven from the land to seek a better livelihood in the cities.

It was a further corollary of poor farm prices that the farmer should imitate the industrialist in reducing his costs by adopting the same methods — large-scale production and the elimination of hand labour by machinery. A powerful incentive pushing him in this direction was the comparatively high level of farm wages, which only fell 36 points between 1919 and 1929 as compared with a fall of 110 points in the price of grains, of 102 in that of cotton and of 71 for all agricultural products. Whatever the motives that hastened their introduction, it can be said without exaggeration

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1 For some interesting facts as to change of diet, see *Recent Economic Changes*, pp. 31 et seq.
2 For further figures and particulars, see *The Agricultural Crisis*, pp. 74-77, and *Recent Economic Changes*, Chapter VIII.
3 *The Agricultural Crisis*, p. 82.
that the tractor and the "combine" have revolutionised American agriculture in the last decade. Dr. Edwin G. Nourse considers that their advent "implies and necessitates a sweeping revision of the whole character of our agricultural industry and of our ideas with reference to farm organisation and management,"¹ as a consequence of which a slow adjustment "to drastically changed conditions" is now taking place.² Here we are concerned only with the social aspects of these changes, but for that purpose it is important to obtain some notion of their rapidity and of the influence they are exerting on the general problem of employment in the United States.

Part of the progress of mechanisation may be seen succinctly summarised in the following figures:³

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of tractors</th>
<th>Number of horses and mules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>246,000</td>
<td>25,199,000</td>
</tr>
<tr>
<td>1925</td>
<td>506,000</td>
<td>22,082,000</td>
</tr>
<tr>
<td>1929</td>
<td>853,000</td>
<td>19,476,000</td>
</tr>
</tbody>
</table>

As regards employment the significance of these figures is that far less human labour is required to look after 600,000 additional tractors than to look after and to grow the fodder needed by the 5,700,000 animals which they have displaced.

In regard to the "combine" complete figures are not available, but progress has certainly been very rapid. This machine, which combines the operations of reaping and threshing, was unknown in North Dakota till 1925. By 1928 there were already 1,000 in use. In Kansas there were 8,275 in 1926, but as many as 20,000 only three years later. There is no doubt that mechanisation is still extending, and all expert prediction foresees its further extension as the low level of world prices compels still further economies in production. In the case of the tractor such economies are partly at the expense of animals, and the reduction of their numbers owing to the spread of mechanical traction, both in town and country, in its turn further restricts the market for grain and hay. In the case of the "combine" economy is wholly effected

¹ Recent Economic Changes, p. 560.
² Ibid., p. 599.
by a saving of labour. Whereas with the “binder” four to five hours were needed to reap, bind and thresh the yield of an average acre of wheat, or from three to four hours with a header or a stationary thresher, the same work can be performed by the “combine” operated by two men in three-quarters of an hour. In other words, every “combine” dispenses with the work of about four or five men in the harvest season.

“The economic consequences which mechanisation portends for labour are of a challenging character.” Inevitably it is tending to reduce the amount of agricultural labour in three directions. In the first place, it has practically eliminated the demand for harvest labour. The flow of harvesters in thousands from the eastern cities to the western wheat areas, where they could usually count on fifty or sixty days’ work at good wages, has practically ceased both in the United States and Canada. This valuable offset against seasonal unemployment in the towns during the summer months has been cut off, though in compensation the use of machinery has lightened and shortened the labour of women and children on the land.

Secondly, less labour is needed on the farm throughout the year. Where machines are used, there are fewer horses needing attention, and even on dairy farms the automatic milker is threatening to displace the cowman.

A third and more serious consequence of mechanisation is the growing inability of the small farmer to compete with the large-scale farms operated with machinery and organised on industrial lines, which are now coming into being. Their costs are so much smaller than those of the small farmer, whose holding is not sufficiently large to make the use of expensive machinery remunerative, that they can produce wheat with a comfortable profit at prices which for him would often mean a substantial loss. This situation may, to some extent, be met by co-operative purchase or hire of machinery by a number of small farmers, but the present tendency seems to be rather in the direction of the formation of large units. As a consequence many smallholders are being obliged either to change their type of farming and to


adopt dairy, stock or mixed farming, or else to abandon their land altogether and seek their fortunes in the cities.

How far the machine should be held responsible for the migration of nearly 4,000,000 people from the land to the towns in the last ten years, and how far it is due to the decline in farm-prices and other causes, it is impossible to say. How many of these people became wage earners is also impossible to determine with any precision. An enquiry among several thousand migrants carried out by the United States Department of Agriculture showed that 38 per cent. had moved to the cities for economic reasons ¹, and were therefore presumably in need of earning their living by wages, while another 25 per cent. moved on account of physical disability, many of whom probably sought jobs within their power to perform. According to another estimate, about 1,000,000 farmers and farm workers sought other occupations between 1920 and 1927 ².

What can be said with confidence is that the case of agriculture is even more striking than that of manufacture. Despite a considerable increase in productivity, there has been a sharp decline in the number of persons employed and sustained by agricultural pursuits, due in a considerable measure to mechanisation. Moreover, the prospects seem to suggest more mechanisation with a further decrease of agricultural employment in the immediate future. The machine age is thus in process of revolutionising the most ancient and conservative of industries, and of accelerating the pace of the rural exodus.

From the above outline, some general observations as to the progress and effects of rationalisation during the last ten years may be tentatively made. In the first place, it has not been confined to a single industry or even to a single major group of industries, but is proceeding simultaneously in practically every branch of manufacture, in mining, in construction and public works, in transportation, in offices, and, finally, in agriculture. Secondly, it has not been introduced more or less gradually, as was usually the case in previous decades, but with considerable rapidity, though no data exist enabling the pace of mechanisation, or of labour-saving management and mergers

¹ Recent Economic Changes, p. 73.
² Ibid., p. 880.
to be quantitatively measured. It would seem, however, that there is ground for thinking that the conditions postulated by Ricardo and Mill as likely to produce a temporary diminution of the aggregate volume of employment may have been created.

The discovery of new machinery has been sudden, its application rapid and its use extensive. As a consequence, the existence of a large amount of "technological" unemployment is generally admitted. Its extent and duration are therefore matters of considerable importance. If they are alike considerable, it may mean that the average amount of "normal" unemployment is tending to be greater than in the past. In that event, what is likely to be the effect on wages and on the consuming power necessary to the maintenance of mass production? If it is true, as Mr. Traylor suggests, that "synthetically we are eliminating workers, whereas synthetically we have found no means of increasing consumption", what economic consequences may be expected to follow?

The social consequences have also to be considered. The degree of hardship involved for individuals will vary enormously according to circumstances. If a man is out of work only for a short period and may then reasonably hope to obtain new employment at a higher rate of remuneration, or at least at an equally good wage, then the social effects of rationalisation need not be regarded as serious, and on the whole may be expected to be beneficial. If, on the other hand, displacement by machinery usually means a long waiting period of unemployment during which savings are exhausted, the education of children may have to be sacrificed and even the home itself broken up. Further, if new employment when found is likely to be less well paid and to offer diminished security, then the consequences of rationalisation must be held to create a real social problem. These questions are now receiving a good deal of attention in the United States and clearly merit careful consideration.
CHAPTER IV

SOME ASPECTS OF TECHNOLOGICAL UNEMPLOYMENT

From the previous chapter it appeared that, largely owing to technical improvements, there had been a shrinkage of the working population both in industry and agriculture during the past ten years. Altogether more than 1,000,000 workers were displaced between the years 1920 and 1927 from manufacture and transportation and perhaps another 1,000,000 from agriculture. During that time 3,000,000 other persons entered the labour field for the first time in pursuit of a living in non-agricultural occupations. Most of them are believed to have attached themselves to building, road transport, telephones and telegraphs, and to a host of miscellaneous non-industrial pursuits. Altogether some 5,847,000 additional persons sought employment in these occupations. These figures denote that a great occupational redistribution of the population was taking place. Large numbers of people were obliged to change their trade and to take up some new mode of earning their living. How far and how quickly were they actually reabsorbed? Was there an expansion of employment in other occupations sufficient to compensate for the contraction observed in the productive industries? It is generally assumed that the great majority of those displaced obtained new jobs without great difficulty. The United States Department of Commerce estimated that about 3,000,000 more persons were actually employed in transport and communications, domestic and personal services, distributive trades and professional occupations between 1920 and 1927. There is no doubt that while agricultural and industrial employment was declining, there was a considerable simultaneous expansion of what are sometimes called “mass services”. The older economists maintained that, though the expansion of industry through the use of machinery might displace labour, the additional wealth

1 See Chapter I, pp. 3-4.
so created would afford an equivalent amount of new employment in the domestic services. This is only a very partial explanation of what happens in a modern community. As the national income grows, it produces a demand for all kinds of services from people who have money to spend on leisure. This is very evident in the United States. The popularisation of the motor-car to the point where on the average one person in five possesses an automobile created a great demand for garage services and petrol stations. The growth of road travel led to a great development of hotels and restaurants. The transportation of passengers by motor-coach and of goods by motor-lorry opened up a new profession for drivers and conductors. Millions of people were able to spend more money on entertainments, amusements, sports and other forms of recreation, all of which give a great deal of miscellaneous employment. The same was true of the distributive trades. The growth of these occupations, moreover, called for a great amount of new building and the general rise in the standard of comfort created a strong demand for better housing, these two factors combining to stimulate a considerable expansion of the construction industry. It would therefore be quite erroneous to suppose that the shrinkage of industrial and agricultural employment denoted a corresponding shrinkage of employment in general. That is certainly far from being the case; but it may nevertheless be still true that the equivalent amount of employment necessary to reabsorb all those displaced may not have become available immediately, or even for some considerable time to come—in other words, that the average net amount of unemployment may have been increased.

**Displacement and Re-employment**

To appreciate the economic and social consequences of technological displacement precisely, it is necessary to know how many of those displaced found fresh employment, how soon they were able to do so, and what was the effect on their standard of living. To obtain complete information on these important points is not at present possible. In the United States, as in other industrial countries, insufficient material is as yet available upon which to form a more or less scientific notion of the extent and consequences of technological unemployment. But there seems to be evidence to suggest its existence in a measure sufficient to render it a social problem of considerable magnitude. During recent years this
fact has been generally recognised, not only by representatives of labour like Mr. William Green, who informed the Committee of the Senate on Unemployment that technological unemployment was the worst problem of unemployment, but also by economists and industrialists. Professor Wesley Mitchell sums up the present position by saying that to recall the familiar fact that in the long run labour-saving machinery increases employment should not diminish by one jot our rating of the hardships suffered by men who are thrown out of jobs. They and their families often undergo severe privation before new employment can be found; the new jobs may pay less than the old, or be less suitable; too often the displaced man never finds a new opening. Technical progress is continually made at cost to individuals who have committed no fault and committed no avoidable error of judgment. No organised plan has been evolved for preventing such hardships, aside from the schemes devised by some trade unions for tiding their members over mechanical revolutions in their crafts. The nations have left the remedy to 'natural forces'; they have trusted that the expansion of production, which improvements bring about, will presently open new places for the displaced workers.

The essential element in the whole problem is the time factor. How far is it true, as is generally assumed, that expansion of production breeds a corresponding expansion of employment sufficiently rapid to prevent any prolonged period of idleness for those displaced by the introduction of labour-saving machinery? There seems reason for thinking that recent experience in the United States supports the view that the time-lag between displacement and re-employment is either more important than has hitherto been supposed, or more important than has been the case in the past. In theory the application of machinery and the saving of labour produce economies, which enable prices to be reduced and thus provoke greater demand. To meet this additional demand, new avenues of employment are opened, which will reabsorb some or all of the workers originally displaced. A little consideration of the practical operation of this process will suggest that the generation of fresh employment will frequently not be as rapid or extensive as is apt to be assumed. Where the demand

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2 *Recent Economic Changes,* p. 877.
for an article is particularly elastic, the effect of reduced costs may operate so quickly that those displaced by machinery are reabsorbed without appreciable delay in order to cope with a swift expansion of production. Printing has more than once afforded illustrations of this process. When the linotype machine was introduced at the end of the last century, the cheapening of the product led to a great expansion of printing, both of books and newspapers, so that the growth of demand more than offset the displacement caused by the machine. At the same time a shorter working day was rendered possible, regularity of employment was increased, and wages were improved. The International Typographical Union was able to enforce the rule that printers should be employed as linotype operators, and as Mr. Gompers, then President of the American Federation of Labor, testified, it was "one of the cases where a new machine revolutionising a whole trade was introduced, that did not involve a wholesale disaster, even for a time".

A recent enquiry indicates that the introduction of automatic feeding presses between 1914 and 1929 has likewise not resulted in serious unemployment. Although considerably greater output was achieved, the number of persons employed on book and job printing increased substantially, while in New York City it was found that the proportion of skilled to unskilled operatives instead of diminishing had increased.

The experience of other industries rather suggests, however, that demand is seldom so elastic as has proved to be the case in the printing trade, and that the record of that trade as regards the reabsorption of displaced workers was probably exceptionally favourable. A converse case, in which productive capacity has increased out of all ratio to the possible expansion of demand, is furnished by the boot and shoe industry. There are 1,329 boot and shoe factories in the United States which at present employ, wholly or partially, 202,191 persons. If only 200 of these establishments were working full time at their present capacity, the remaining 1,129 could be closed down, and the requisite production could still be maintained. If the industry were geared up to the rate of the most efficient factory, its working force could be reduced to 81,811 men, who, working

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300 days a year, could produce the total present output \(^1\). The consumption of boots and shoes is obviously not subject to swift and unlimited expansion. At the present time the inhabitants of the United States use about 300,000,000 pairs per annum, or nearly three pairs for every man, woman and child in the country. If it is true that "the American shoe factories are equipped to turn out almost 900,000,000 pairs of shoes a year" \(^2\), it seems evident that their capacity is considerably in excess of the likely, or even the possible, needs of the population. Further mechanisation, which is no doubt inevitable, can only result therefore in a net displacement of labour. The same is true of a great many other industries. In the woollen industry, for example, even in the boom year of 1929 consumption only amounted to 37.5 per cent. of the potential production in the weaving section, and to 35.8 per cent. in the spinning section \(^3\). Steel production was only 56,000,000 tons against a capacity of 62,000,000 \(^4\). In fact, in many industries, increased productivity has not been accompanied by a corresponding increase in the demand for that particular product, with the result that there has not been re-employment equivalent to displacement, but actually a net reduction in the numbers employed \(^5\).

Two other practical factors operating to increase the time-lag between displacement and re-employment are the tendency in some cases to maintain prices, even when costs have been lowered, on the one hand, and the slow reaction of demand to the stimulus of lowered prices on the other.

As regards the former, the lowering of prices may not always be possible, and even where it is possible, it is not always practised by manufacturers. The temptation to earn larger profits by maintaining the price is often strong. Even when the manufacturer resists it, the dealers or shops, through whom his goods reach the public, may not immediately pass on to the latter the benefit of the reductions made by the producer. Again, even if retail prices are lowered in the same proportion as wholesale prices, it does not follow that the public will react quickly, or even that


\(^5\) For further illustrations, see Hamlin, *op. cit.*
it will react at all, to the extent necessary to create additional employment equivalent to the displacement caused. In some cases, as has already been pointed out, demand is not sufficiently elastic to enable more than a certain amount of additional production to be consumed. Though it is no doubt possible to increase the output of wheat, boots or motor-cars almost indefinitely, there is a limit to the quantity which the population of any given country can or is likely to buy. Output may, however, and in some cases has, considerably exceeded this limit owing to multiplication of production by mechanical means under conditions of unlimited competition. The result is that there is no market for the surplus production except abroad, where other elements — such as foreign competition, the balance of trade and tariff barriers — make it impossible to guarantee that foreign consumption will be able to absorb it. Finally, even where the demand is elastic, it will often take time to educate the public to the advantages offered by lower prices and thus to expand demand, and with it re-employment. During that educational period employment will not expand in such a way as to reabsorb those who have been displaced.

**Social Consequences**

It may be said, therefore, that the rapid and simultaneous displacement of labour over a large number of industries is likely to involve a great deal of shifting and readjustment. A more or less prolonged interval will thereby be involved before those who have lost their jobs have all secured new employment. Such readjustments will frequently necessitate changes of residence which workers are usually reluctant to make and sometimes find almost impossible owing to the expense of removal or to shortage of housing accommodation. They will also frequently necessitate changes in habit and occupation, which the natural conservatism of most human beings leads them to postpone as long as possible in the hope of their becoming unnecessary. As Professor Douglas puts it, “this very human combination of optimism and inertia of course very greatly prolongs the transitional period of unemployment” 1.

That these expectations are in fact fulfilled has been to some extent verified by investigations carried out in the United States. Unfortunately, neither there nor elsewhere has sufficient attention

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been paid to the social effects of displacement of labour by machinery to enable a satisfactory estimate to be formed of their gravity, or of the extent and duration of technological unemployment either in particular industries or in industry as a whole. The enquiries so far made, however, arrive at sufficiently similar conclusions to suggest that a real social problem has been created by the recent rapidity of technical progress.

Some striking examples may be found in Professor Barnett's valuable study. The experience of the bottle-making industry, for instance, is in contrast to that of the printing trade. The Owens automatic bottle-making machine was first introduced about 1905. At that time there were 10,000 skilled workmen and apprentices in the trade. By 1924 90 per cent. of the production was effected by the new machines, and the number of skilled men had been reduced to 2,800, in addition to which nine-tenths of the unskilled personnel was no longer required. During all this time the output of bottles had been increasing very rapidly. It actually doubled between 1904 and 1919; but the reduction in employment was not compensated by any increase of wages for those remaining in work. On the contrary, the skilled men's rates declined until they were about equal to those of the machine attendants. On the other hand, some reduction of hours was introduced by the application of a three-shift system which enabled a number of men to be retained who would otherwise have been deprived of employment altogether.

More recently the Brookings Institution carried out a survey covering 754 displaced workers, drawn from twenty-two different occupations, some skilled, some unskilled, some of them industrial workers, some clerical and professional workers. The result of this enquiry showed, in the first place, that in the great majority of cases there was a considerable interval during which no fresh employment was obtainable. Of the 410 who had obtained employment, 231 took three months or more in which to secure it; while of the 344 who were still unemployed 142 had been looking for work for six months, and 40 had been out of work for more than ten months. Secondly, it was found that only 32 per cent. of those who had secured employment had been able to do so in their old industries. Of those who were obliged to find new occupations only 53, or 13 per cent., went into the newer industries such as garages, filling stations, restaurants and hotels, cinemas,

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1 See Barnett, op. cit., Chapters III and IV.
bootlegging and beauty parlours. As to their incomes, it was found that 77 had increased their earnings by changing jobs, 197 had lost money, and 111 had remained at the same wage. Finally, the older workers naturally found the greatest difficulty in obtaining fresh employment.

Similar conclusions seem to suggest themselves from another investigation relating to 370 skilled cutters displaced from the clothing trade in Chicago. These men were discharged with a dismissal wage and two years later only 75 of them, or 20 per cent., were engaged in any kind of cutting, while 17 others were operating small tailors' shops of their own, so that only one-fourth of the men were engaged in a trade similar to their old calling. Twenty-nine had still failed to obtain any regular employment, and the majority of the rest had gone into non-industrial occupations of various kinds. "As a very rough estimate, 25 per cent. of the workers were in jobs which generally would be conceded to be better than cutting, 40 per cent. were in worse jobs and 35 per cent. were in jobs approximately as good."

In the case of another study made by the Yale Institute of Human Relations in regard to displaced rubber workers, "it was found that less than one-third were receiving either as much or more than before, and that such gains as there were amounted to but little. On the other hand, not only were over two-thirds of the workers receiving less on the new job than on the old, but the amounts of these losses were in some cases very great." These instances cannot, of course, be relied upon as giving a complete picture of the consequences of technological displacement on employment. They represent much too small a sample on which to found any general conclusions. At the same time, it is significant that they all agree in showing that the skilled man once displaced by machinery finds it as a rule difficult to obtain fresh employment in his old industry. Crafts are becoming useless almost overnight, with the inevitable result that men who have acquired great manual skill by years of apprenticeship and experience suddenly find it an unsaleable commodity.

1 Lubin, op. cit.
Secondly, it appears that in the majority of instances a consider­able spell of unemployment intervenes before any new job can be discovered.

Thirdly, the evidence produced by these investigations does not support the belief that change of occupation enforced by mechanical improvements leads in most cases to the material betterment of the man turned off. On the contrary, the majority were only able to secure re-employment at a lower wage.

One further point deserves notice. It is important to realise that all these recent investigations were carried out during the period of good business, when employment was good and plentiful. The emphasis laid on the serious social consequences of technological displacement by trade union leaders and social observers suggests that the findings of these surveys do not represent an uncommon type of experience. If that is so, it would seem that even in good times the difficulty of obtaining new and satisfactory employment is much more serious than is usually supposed. In bad times, the difficulty must obviously be considerably intensified. It may therefore be concluded that the effects of rationalisation will differ according to economic circumstances. When prices are rising and trade is booming, they will be much less serious or noticeable than in times of depression. Although there was always a considerable body of unemployed in the United States during the time of prosperity, very large numbers of displaced workers were nevertheless undoubtedly being absorbed fairly readily in the new ancillary services and occupations which a high level of spending among the people called into existence. It seems to follow, however, that those services and occupations, which would be classified as "luxuries" rather than as "necessities" in the budget of the ordinary person of small or moderate means, would for that very reason be the first to suffer when incomes were diminished by trade depression. It is impossible to prove this, as there are as yet no adequate statistics of employment covering all these miscellaneous occupations; but the general agreement on the existence of a remarkably high proportion of "white-collar workers" in the American, or "black-coated workers" in the British, phraseology, among the unemployed seems to bear out the supposition that many of the new occupations proved unstable when bad times supervened. Whether that be so or not, however, the social consequences of rationalisation are clearly liable to be more severe in times of depression. When
staffs are being reduced everywhere and the general tendency is to avoid expenditure except on necessaries, it is obvious that the displaced man will find it exceedingly difficult to obtain fresh employment. On the other hand, it is just in times of depression that the incentive to rationalisation is naturally strongest. If he can procure the requisite capital, the manufacturer will be inclined to adopt any measures, however drastic, to reduce costs, whereas so long as business is going well, he is less disposed to face the labour and disturbance of routine involved by reorganisation. It would seem, therefore, that in times of depression the adoption of labour-saving devices is at least as probable as in times of prosperity, while the effect of their introduction in diminishing the aggregate amount of employment available is likely to be more serious.

**Effect on "Normal" Unemployment**

The general conclusion to be drawn from the foregoing considerations is that rationalisation as recently carried out probably does involve a good deal of unemployment. No doubt, seen over a sufficient period of time, it may correctly be regarded as being temporary and transitional in character; but the question arises whether it may not nevertheless increase the average number of the unemployed for a period extending over a number of years, while gradual readjustment is being effected. At any moment there is a proportion of every industrial community who are not in work — sometimes referred to as the "reserve of labour". How far that reserve may be swollen by the addition of large numbers displaced by labour-saving devices cannot be ascertained with any certainty, as it is difficult to distinguish between those unemployed for this reason and those who were already "redundant". But it may very well be that the figure of "normal" unemployment is tending to become higher now in the United States and in some other countries, and that this state of affairs may persist for some time to come. It will be remembered that even in the years of greatest prosperity it was found that on a conservative estimate there were at least 1½ to 2 million people out of work on the average. This figure represents from 5 to 6 per cent. of the non-agricultural wage-earning population. Whether this is a higher figure than

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1 See Chapter I, p. 4.
in pre-war times is impossible to say, because there are no statistical data on which to found a comparison. Moreover, such a comparison would in any case be misleading, because the great influx of immigrants which constituted an inexhaustible reservoir of labour before the war has now been severely restricted. It does not seem improbable, however, as some authorities believe, that the "reserve of labour", which had been considerably diminished by the restriction of immigration during and after the war, has been re-established by the displacement of workers due to rationalisation.

| Economic Consequences |

The preceding considerations primarily relate to the social consequences of rapid displacement of labour through mechanical progress and other methods of more efficient and economical production. They concern the effect on the status and well-being of the worker actually displaced. Some attention must now be devoted to the economic consequences of this process, that is to say, its effects on industry as a whole, on the business situation of the employers generally on the one hand and on the remuneration of the workers generally on the other.

In the first place, the effect of widespread displacement on wages deserves some attention. As has just been seen, there is some reason to think that it has resulted in enlarging the "reserve of labour", which had been diminished by the restriction on immigration. Now it may be suggested that this is a normal, inevitable and automatic process. The argument would run as follows: "Scarcity of labour produced high wages. High wages produced rationalisation in order to avoid high labour costs. Rationalisation

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1 The pre-war estimates of unemployment rest on such fragmentary data that they cannot be safely used. The numbers of those attached to the main categories of industry were obtained by the census returns for 1889, 1899 and 1909. Some particulars as to unemployment were also obtained and published for the first two of these years, but not for the third. Annual statistics of unemployment were available for the States of New York, Massachusetts and Pennsylvania only, and only as regards manufacturing industry. In addition, some figures were collected as to employment on railways, in mines and in the teaching profession, while the Census of Manufactures gave the numbers found to be employed in manufacture once every five years. Finally, there were regular trade union returns of unemployment among their members in New York and Massachusetts, but as they only comprised a relatively small proportion of the industrial population, they cannot be treated as representative. It will be seen that on such material it is impossible to arrive at any trustworthy estimate of the total amount of unemployment in the United States before the war. (For a discussion of the sources available, see Douglas: Real Wages, Chapter XXIII, and Bryce Stewart: Unemployment Benefits, pp. 20-31.)
produced a large enough measure of unemployment to render labour no longer scarce. The plentfulness of labour will in its turn produce lower wages. Low wages will destroy the main motive of rationalisation, and so slow down its progress." This theory in effect suggests that excessively rapid mechanisation can be bought off at the price of reducing wage standards. It is not at all certain, however, that this will always or even normally be the effect of lowering wages under modern conditions. There are numerous instances in which such drastic cuts in wages would be necessary to offset the reduction of costs promised by labour-saving machinery that they would not be within the bounds of practical politics. Where, for instance, the work of five men, or even of ten men, can be equally well performed by one man operating a machine, it is unlikely that any possible wage reduction would deter the employer from introducing that machine, nor has past experience shown that the acceptance of lower wages by the trade unions in order to compete with machinery has long succeeded in saving their members from unemployment. Moreover, the motive to rationalise becomes particularly strong at times when capital is cheap and abundant, as was the case in the United States in recent years. It cannot, therefore, be taken for granted that lower wages will necessarily slow down the pace of rationalisation to any great extent, simply because the economies which it offers are frequently so great as to outweigh any practicable wage reductions.

Is it not probable, however, that the increase of the supply of labour due to displacement by machinery will tend to lower wages, whether or not the motive for rationalisation is there by weakened? In fact, that is held to be the usual course of events in countries where the operation of economic forces is allowed full play, unhampered by social legislation restricting the mobility of labour or by organised resistance by trade unions to the debasement of existing standards. At this point, however, a dilemma arises to which reference has already been made. If real wages are substantially reduced, a large part of the market upon which rationalised production depends for its outlet will have been crippled. Although it may be possible to procure men at lower rates, it may in certain circumstances be really uneconomic for industry as a whole to insist upon applying those rates. It might

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1 See, for instance, Barnett, op. cit., pp. 100-101.
pay it better to rest content with the same profits and to maintain wages above the theoretical "economic level". The difficulty in the way of this policy is that it requires a large measure of co-operation and agreement among industrialists in order to make it effective. If A thinks he can gain an advantage over B by lowering wages, he is likely to do so. By putting the extra profit so obtained to lowering his prices, he will gain an advantage in competition, which will probably force B to follow suit, however reluctant he may be to do so. If prices for all articles and wages of all classes of workers were reduced in the same proportions throughout a whole nation, the net result would, of course, be the same as before; but if, as is more probable, the earnings of some classes were reduced more than those of others, their standard of living would have been debased. That implies less expenditure on articles which are not strictly necessary with the inevitable consequence of a proportionate shrinkage of the consumption of those luxury and semi-luxury articles which rationalisation has brought within the compass of the masses or of those "mass services" built upon their greater leisure and spending power.

It does not seem an adequate answer to reply that, though the living standards of some sections of the working population may have been reduced, those of the profit-earning class will have been improved. No doubt the latter will then be able to gratify tastes and desires which previously went unsatisfied; but they will not do so in a way that will make their custom a satisfactory compensation for the loss of purchasing power among any large section of the wage-earning population. Those who derive their income from wages and salaries represent hundreds of thousands of buyers of low-priced articles, while those whose income comes from profits represent thousands of buyers of higher priced articles. The former constitute the bulk of the market for mass production. The latter can give it little effective support, simply because they are not sufficiently numerous, even if they did not prefer the more expensive goods within their reach. For the success of mass production not only must the aggregate national income be high, but its distribution must be such as to make mass consumption possible.

**The Significance of "High Wages"**

From the above argument it follows that where, as in the United States, a great expansion of production has been built up upon a parallel expansion of the buying power of the masses, or in other
words of the wage earners and the small farmers, any considerable restriction of wages or of farm incomes would be apt to prejudice the existing balance of the industrial structure. According to Professor Douglas's calculations, the average annual earnings of wage earners in all industries (excluding agriculture) rose from $486 in 1890 to $682 in 1914 and to $1,473 in 1926. When these figures are brought into relation to the cost of living, annual real earnings are found to have increased by only 4 per cent. in 1914 as compared with the average of the years 1890-1899, despite the increase of nominal earnings. By 1919 the index of real earnings was still only 8 per cent. higher. After the war, however, a striking advance in the buying power of the wage earners took place and in the next seven years real wages rose by no less than 21 per cent.  

As a consequence of this rise in real wages, consuming power was spread more widely and deeply than at any previous time, thereby making it possible to produce various articles of common use in great quantities. An analysis of the utilisation of this new spending power shows that comparatively little of it was devoted to food, though the diet of the population was greatly improved. The textile and clothing industries only developed considerably in respect of semi-luxury articles, such as rayon goods, carpets and rugs. The tobacco industry owed its growth mainly to cigarettes. The most marked expansion took place in machine-made articles for household use, furniture, radio apparatus and automobiles. The following table indicates some of the principal fields in which consumption increased and in which mass production catered for it.

### TABLE XII. — CONSUMPTION OF CERTAIN ARTICLES, 1919-1927

<table>
<thead>
<tr>
<th></th>
<th>1919</th>
<th>1927</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rayon (annual consumption)</td>
<td>9,246,000 lbs.</td>
<td>96,271,000 lbs.</td>
</tr>
<tr>
<td>Radio apparatus (sets in use)</td>
<td>60,000 (1922)</td>
<td>6,500,000</td>
</tr>
<tr>
<td>Electric irons (total in use)</td>
<td>1,047,822</td>
<td>2,937,258</td>
</tr>
<tr>
<td>Passenger automobiles (registered)</td>
<td>6,771,074</td>
<td>20,230,429</td>
</tr>
<tr>
<td>Fixed baths (total in use)</td>
<td>9,722,000</td>
<td>16,545,000</td>
</tr>
<tr>
<td>Telephones (total in use)</td>
<td>4,228,000</td>
<td>7,875,000</td>
</tr>
<tr>
<td>Electricity users</td>
<td>6,900,000</td>
<td>16,359,000</td>
</tr>
</tbody>
</table>

Compiled from *Recent Economic Changes*, pp. 51-70, from which the particulars in the foregoing paragraph are also taken.

1 Douglas: *Real Wages*, pp. 391-393, table 147.
It will be readily seen that these figures denote a remarkable improvement in the general standard of comfort of the mass of the people in the short space of eight years. The great industrial output which had thus been called forth was based not on the demand of a wealthy few, but on that of a large section of the wage and salary earners. On their ability to spend freely after satisfying the necessities of life, large sections of American industry came to depend for their livelihood. It is mainly on this ground that the "theory of high wages" has been put forward and has gained wide acceptance among industrialists in the United States during the last decade. But, as has been already suggested, the existence of high wage rates is not enough, unless it is accompanied by a high rate of employment. What matters to the manufacturer and the salesman is not the general level of wages, but the general aggregate of earnings available for expenditure in consumer goods.

RATIONALISATION AND AGGREGATE EARNINGS

Professor Douglas has made a careful study of the effect of unemployment on aggregate earnings. His findings indicate, as might be expected, that in periods of depression the real earnings of those still employed may actually show an increase, whereas the aggregate real earnings of the whole group show a marked decline. In 1921, for instance, wages in manufacturing and transportation fell less than the relative decline in cost of living, so that the real earnings of those actually in employment rose by 2 per cent. Owing to the widespread unemployment, however, the aggregate real wages of those attached to these industries dropped by 16 per cent.  

It further appears that the proportion between the total amount paid in wages and salaries in manufacturing industry and the total value added by manufacture has been modified in recent years, as may be seen from the following table.

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1 Douglas: Real Wages, p. 467.
2 Ibid., p. 540.
TABLE XIII. — TOTAL AMOUNT PAID IN WAGES AND SALARIES IN CENSUS YEARS, AND PERCENTAGE WHICH THESE AMOUNTS FORMED OF THE TOTAL VALUE ADDED BY MANUFACTURE

<table>
<thead>
<tr>
<th>Year</th>
<th>Total amount paid out in wages and salaries (in millions of dollars)</th>
<th>Percentage which wages and salaries formed of total value added by manufacture</th>
<th>Year</th>
<th>Total amount paid out in wages and salaries (in millions of dollars)</th>
<th>Percentage which wages and salaries formed of total value added by manufacture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899</td>
<td>2,391</td>
<td>49.5</td>
<td>1919</td>
<td>13,426</td>
<td>53.6</td>
</tr>
<tr>
<td>1904</td>
<td>3,185</td>
<td>50.6</td>
<td>1921</td>
<td>10,765</td>
<td>58.7</td>
</tr>
<tr>
<td>1909</td>
<td>4,386</td>
<td>51.2</td>
<td>1923</td>
<td>14,024</td>
<td>54.2</td>
</tr>
<tr>
<td>1914</td>
<td>5,354</td>
<td>54.2</td>
<td>1925</td>
<td>13,877</td>
<td>51.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1927</td>
<td>14,078</td>
<td>51.0</td>
</tr>
</tbody>
</table>

If this table is examined, together with table X, it will be seen that for the period 1923-1927 there was practically no increase in the total amount of wages paid in manufacturing industries, although the total value added by manufacture had increased by nearly $2,000,000,000, or over 7 per cent. It further appears that the percentage which wages and salaries represented of the total value added by manufacture (as high as 58.7 per cent. in 1921) declined during these years from 54.2 per cent. to 51.0 per cent. Finally, the number of persons employed also declined from 8,769,000 to 8,350,000 in the same period. From these figures a certain number of interesting possibilities suggest themselves.

In the first place, it seems that the explanation of higher individual earnings in the manufacturing industries lies largely in the distribution of the same quantity of money among a smaller number of workers.

In the second place, the fact that less of the net proceeds were being allotted to wages and salaries indicates a possible source of disequilibrium between production and consumption. For one thing, such a change would probably lead to some alteration in the direction of demand. It is to be expected that with less going to labour and more to capital, a smaller proportion of the total income of industry would be used to buy consumers’ goods and a larger proportion used to buy capital equipment. Even if the recipients, other than wage and salary earners, increased their expenditure on consumers’ goods proportionately to their larger share, difficulties would still arise. As has already been suggested, the result might be an enhanced demand for “cooks, dancing girls, teachers of fine arts, musicians and so forth”, but that would be cold comfort to the miner, the textile operative, or the mechanic, who would find difficulty in qualifying quickly for these new
professions. Such a re-orientation of demand would in fact involve another great transfer of labour from one class of occupations to another, and the attendant amount of transitional unemployment would diminish the normal demand for mass products while the readjustment was in progress.

Furthermore, it is possible that this reduction in the proportion going to wages and salaries resulted not only in a change in the direction of demand, but in an actual falling-off in demand generally. It may be that instead of the whole of the additional share allotted to capital being used to buy capital equipment or consumers' goods, a portion of it was held up either in banking accounts or as undistributed profits, or was used for purposes of stock exchange speculation. In regard to this last point it is interesting to note that Professor Douglas suggests that the failure of real wages to advance parallel with productivity, together with the attendant decline of labour's share during this period, "may have been responsible in part for the increased profits of industry, and for the consequent rise in stock market prices which was abundantly characterised during the years 1924-1926". If it is true that money which might have been used to pay wage earners, who in turn would have used it to buy consumers' goods, was either withheld from circulation in some way or devoted to speculative uses, it is evident that a factor came into operation tending to destroy the fundamental balance between production and consumption without which continued prosperity is impossible.

Summary

The above remarks on technological unemployment are necessarily inconclusive in the absence of the requisite data by which to measure its extent and its consequences. There seems reason, however, for taking the immediate effects of the displacement of labour through mechanical and other labour-saving improvements more seriously than has been customary, or perhaps necessary, in the past. In cases where millions of persons are being dislodged from their habitual occupations through drastic economies in manual labour being introduced more or less simultaneously in manufacturing, mining, railways, agriculture, and clerical occupations, the redistribution of the working population involved becomes so formidable that the process of readjustment cannot be quickly effected. Where changes occur gradually and piecemeal, as the older economists expected, their consequences are not severely
felt; but where they are rapid and widespread, considerable dislocation arises, because the process of readjustment cannot be speeded up to keep pace with them. Hence a time-lag is engendered which implies a substantial volume of unemployment. Only in exceptional cases, where demand is particularly elastic, does cheapened production produce an expansion of demand capable of quickly reabsorbing the labour displaced. In most instances the lowering of prices and its effect in increasing consumption are bound to be slow processes. Moreover, it may well occur that, even when they have produced their maximum effects, the net amount of employment in the industry concerned is still smaller than before rationalisation took place. Consequently, a common result of rationalisation will be the compulsory migration of a larger or smaller number of workers from one occupation to another. The change cannot be effected without considerable hardship to the individuals concerned. Available information does not permit any certain judgment to be formed as to the actual amount of unemployment due to technological causes. Nevertheless, the general evidence of technological unemployment has sufficiently impressed employers, labour leaders and economists in the United States to have brought it to the forefront as a social problem. In good times the development of all kinds of services on account of the growth of wealth in all classes due to increased productivity provided alternative employment for a large proportion of those thrown out of work by labour-saving processes, but many of them none the less only found jobs after a more or less prolonged period of unemployment and often at lower wages than they had been previously earning. Moreover, there seems reason to suspect that the "luxury" trades and services offer on the whole less stable employment as being the first to feel the effects of depression and the last to feel the effects of recovery.

On the economic side, the result of very rapid technological change may well have been to increase the "reserve of labour", or the average number of the unemployed at any given moment. Though, in the absence of trustworthy statistics, this supposition is incapable of proof or of disproof, on general grounds it appears probable. Even in the United States, where the working population is habitually mobile and adaptable, there are nevertheless definite limits to the power of movement of a working man, particularly if he has a family, and in default of any organised system by which he can obtain information his means of discovering where jobs are vacant are largely fortuitous. The creation of a larger
reserve of unemployed may have the effect of reducing wages and thus stimulating additional production, which will again reabsorb many of the unemployed. Unless, however, the working population as a whole retain the standard which they have achieved since the war and which has made mass production possible, general wage reduction would be a serious matter for those industries which depend on the wage earners’ marginal spending power for a large part of their market. Should real wages decline, those industries would be obliged to contract, while others catering for the needs of the more well-to-do would expand. In fact, a new cycle of industrial readjustment would be started with all its attendant frictions and disturbances, both for employers and workers. Consequently, the distribution of the national income is seen to be vital to the balance of the industrial structure. The problem of the respective shares of labour and capital in the product of industry becomes one of primary importance, and the question arises whether any part of the present depression is attributable to a failure to maintain equilibrium in this respect.

All these conclusions are of a highly tentative character. They require to be tested in the light of much fuller information than is at present available. But as the technique and the material of economic investigation are gradually perfected, it may be hoped that it will become possible to put these matters to conclusive proof and so to guide economic thought and action more surely than is at present possible, not forgetting that the fate and happiness of the great mass of individuals is largely determined by the correctness of judgment of those responsible for the economic destinies of the community in which they live.
CHAPTER V

REMEDIAL MEASURES

One of the natural effects of the present economic crisis has been to revive keen and widespread discussion in the United States as to the means of preventing unemployment, or of mitigating its effects when it occurs. Similar discussion was provoked by previous depressions, but on the present occasion a change of attitude may perhaps be observed. It has always been part of the individualist creed which has hitherto dominated American social thinking that the community as such has no responsibility for the individual who is without work or the means of subsistence. It was usually held that his inability to obtain work was somehow his own fault, and that if he showed sufficient energy and enterprise in looking for a job, he was sure to find one. Consequently no system of public assistance exists in the United States. A sharp distinction has always been drawn between the charitable obligation which any body of citizens may feel to relieve distress in their midst by private generosity, and the assumption of any duty by the Federal or State Governments to afford relief out of public funds. This distinction has, indeed, been vigorously maintained by the President in dealing with the present emergency. In resisting the appropriation of $25,000,000 passed by the Senate for the direct relief of the farming population in the drought areas, he took his stand on the American tradition that public money should not be used for alleviating poverty, whatever its cause. He therefore informed Congress that it was the duty of the Government, but of the Red Cross to "relieve the cases of individual distress by the sympathetic assistance of our people." ¹

The fact that the Senate took a different attitude is an indication that public opinion, which on the whole had always taken the view upheld by Mr. Hoover, is no longer so unanimous as in the past. The extent and the acuteness of the distress caused by the existing depression has created a situation with which private effort could

¹ Message to Congress, 2 Dec. 1930.
scarcely hope to cope adequately. The sight of many thousands of men, who had been accustomed to high wages and a good standard of life, reduced to pauperism through circumstances over which they had no possible control, impressed the public mind with a strong sense of collective responsibility. This sentiment found its first expression in large-scale charity. Private generosity and organising energy were forthcoming in abundance. Large sums were raised and emergency committees were set on foot in every city to assist those in the greatest need. Altogether in 1930, $6,652,929 were privately collected and expended on relief in the seventy-five principal cities. These funds were often administered by the public authorities. The doling out of food and clothing to the most needy applicants served to combat the worst effects of the crisis. Nevertheless, there still remained a great deal of distress which charity was unable to relieve, with the result that large sums of money raised out of local taxation were expended on relief. The most striking case is that of Detroit, where 97.7 per cent. of the total relief expenditure, amounting to $8,680,017, was drawn from public funds. In the other seventy-four cities public money was also expended to the extent of $8,599,459, from which it will be seen that more relief was, in fact, given by public than by private agencies.

The existence of large funds in the great urban centres aggravated their problem by attracting to them thousands of unemployed from the surrounding districts, where few or no facilities for relief were to be found. The agglomerations of unemployed in the big cities made the task of the emergency organisations doubly difficult. The limits of their problem were constantly shifting, not only because the number of applicants steadily grew with the progressive exhaustion of savings through prolonged idleness, but also because of the influx of fresh applicants from outside, whose numbers could not be computed in advance. As the result of these experiences the view is gaining ground that private initiative is no longer sufficient. As the Committee on Unemployment appointed by the Governor of New York has reported, "Charity, while necessary at present, should not be the final method by which the worst effects of unemployment are alle-

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2 Ibid.
viated. Charitable relief is often inadequate in amount and carries with it a sense of degradation which causes large groups to suffer greatly before they will ask for aid."

The conviction is therefore growing that some more systematic method must be adopted for dealing with the effects of unemployment, which is recognised as being a grave social disease not merely in times of economic crisis, but even in normal times, particularly on account of the great volume of technological displacement and the prevalence of seasonal unemployment in many industries. The search for preventives, remedies, and palliatives is mainly concentrated in four channels — the organisation of public works, the organisation of public employment agencies, the institution of some system of unemployment insurance, and the regularisation of employment.

**Public Works**

A great deal of energy has been applied by the Federal, State and municipal authorities in pushing forward programmes of public works in order to create additional employment. The contracts given out for the first four months of 1930 showed an increase of 30 per cent. over the corresponding period in 1929. In some cities, of which Rochester (N.Y.), Cincinnati (Ohio), and Harrisburg (Pa.) are perhaps the best-known examples, machinery was already in existence for planning public undertakings and adjusting their execution to the state of employment. In other cities large sums were borrowed or voted from taxation in order to inaugurate or accelerate schemes which would afford immediate employment, quite apart from the efforts made to improvise odd jobs of all kinds on repair work, street-cleaning and other miscellaneous occupations. All these activities were stimulated and encouraged by the President's Emergency Committee for Employment. No particulars are yet available as to the amount of additional money so expended or the amount of additional employment thereby created. It is certain, however, that a considerable number of persons were gradually absorbed by public construction, and the number would no doubt have been larger but for the delays which inevitably occur between the authorisation of works and their execution, unless plans have been thoroughly prepared beforehand.

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The experience of the present crisis has concentrated further attention on the possibility of making provision in advance for carrying out large-scale programmes as an offset to industrial depression. This idea was favoured by Mr. Hoover as Secretary of Commerce in 1923, when he proposed that Government work should be slowed down in good times to avoid competition with private construction and reserved for periods of slackening employment. Action in this sense was also recommended by several State legislatures, and Bills for the same purpose were introduced into Congress by Senators Jones and Wagner in 1928. A more ambitious plan was put forward by Mr. Brewster, Governor of Maine, who advocated the formation of a State and Federal Reserve Fund of $3,000,000,000 for expenditure on public works in periods of depression. A very important practical step has, however, issued from the present crisis in the establishment of an Employment Stabilisation Board by the Federal Government under the provisions of the Bill introduced for the purpose by Senator Wagner, which was signed by the President on 10 February, 1931. The Board includes the Secretaries of the Treasury, Agriculture, Commerce and Labor, and its purpose is to bring about the advance planning of public improvements under such control as may enable speeding-up of such expenditures during periods of dull business, and slowing down during prosperity, in order that a reserve of employment may be built up. The Board has authority to supervise the advance planning of federal expenditure on public works, and it is hoped that not only State and local Governments, but also public utility and general business organisations can be brought into co-operation in shaping its policy. The Board will work under the auspices of the Department of Commerce, and will have a small expert staff at its disposal.


2 Statement by the Department of Commerce (U.S. Daily, 26 March 1931).
could be raised without hampering industrial enterprise. These views have now found effective expression in the creation of the new Board, which marks a very important attempt to regulate and to maintain employment by governmental action. Although it may not be found possible to absorb more than a certain proportion of the unemployed by such means in a period of serious depression, a comprehensive and systematic policy of public works may be expected to prove a remedial measure of great value.

**PUBLIC EMPLOYMENT AGENCIES**

In addition to the provision of relief and the creation of work by public authorities, the question of improving the official machinery for dealing with unemployment has also received a good deal of attention during the present crisis. As has already been indicated, the absence of any regular or reliable statistics of unemployment makes a scientific approach to the problem of its prevention or cure difficult. An improvement in the statistics of employment is likely to result, however, from the passage in 1930 of a Bill introduced by Senator Wagner, which provides for the broadening of the basis of the index of the Bureau of Labor Statistics and its extension to cover all the principal branches of economic activity.

A more important measure was adopted by Congress in March 1931, when it passed another Bill, also sponsored by Senator Wagner, which provides for the reorganisation and expansion of the Federal Employment Service. Until the entry of the United States into the war no federal machinery existed for registering jobs and notifying them to the unemployed. Employment offices had, however, been set up by a number of State and municipal Governments, so that by 1916 there were ninety-six such offices for the whole country. Of these six were directly administered by the State authorities, while the remainder were controlled by local authorities, with or without State co-operation. These services varied greatly in efficiency and were often starved for funds. The trade unions took little interest in them and preferred to rely on their own efforts, though these were of course confined to assisting their own members. With the outbreak of war, however, the need for organising the distribution of labour became imperative, and in 1918 the United States Employment Service was created. The State services were expanded and new offices established under federal auspices, the whole system being
administered by the Department of Labor by means of federal appropriations. At the close of hostilities no fewer than 832 offices were in existence, covering every State in the Union, at a total cost of about $5,500,000 annually. During the last year of the war 2,371,677 vacancies were notified to employers, but among the latter the system was never popular. When the war came to an end, Congress reduced the appropriations to such an extent that the greater part of the service had to be disbanded. By 1928 it was reduced to a skeleton force of 170 offices in thirty-five States with a federal grant of only $205,000 1.

Nevertheless, the need for some machinery for co-ordinating the various employment agencies and for bringing the demand for labour into systematic relation with the supply was growingly felt. The idea found favour with the American Federation of Labor and was incorporated in their programme for combating unemployment. The Report of the Executive Council to the Annual Convention of 1930 stated that "Society has a responsibility for providing service for all who need employment. To provide aid in finding employment is the first constructive policy. . . . Society through its organised channels owes it to its working citizens to provide them with information of all available work opportunities" 2. In spite of the opposition of the majority of employers to any form of "State interference with industrial relations", the view that organisation of the labour field had become necessary steadily gained ground. Senator Wagner introduced his Bill in 1929 and again in 1930 to provide an appropriation of $4,000,000 annually for the reconstruction of the Federal Employment Service. Its principal functions were to consist in promoting the establishment of employment offices by the various States and the co-ordination of their operations, "by establishing and maintaining uniform standards, policies and procedure, and by aiding in the transportation of workers to such places as may be deemed necessary, for the purpose of obtaining employment" 3. Three-quarters of the total grant was to be apportioned among the States in accordance with their population and their progress in establishing an effective service. The Bill was warmly supported by Mr. William

1 The foregoing particulars are mostly derived from Bryce Stewart, op. cit., pp. 31-41.
3 Bill S. 3060 (1930), section 3 (a).
Green on behalf of the American Federation of Labor and strongly opposed by the National Manufacturers' Association. The latter maintained that it was unconstitutional as being an infringement of State rights. The Bill was finally passed by both Houses in March 1931, but was vetoed by the President, on the ground that it provided insufficient federal control and for other technical reasons. He indicated, however, that the Department of Labor would prepare a new Bill for presentation to the next Congress. This action provoked strong protests from the American Federation of Labor and from other quarters; but the passage of the Bill by Congress marks a further step in the recognition of unemployment as a social problem, of which the treatment cannot be left to private initiative, but demands the intervention of Government for the aid of the displaced worker and for the better organisation of the labour field.

**Voluntary Insurance against Unemployment**

The slogan is commonly repeated in the United States that "the best cure of unemployment is employment". This is a truism which cannot of course be over-emphasised, and the main endeavour of American social thinking has been along the positive line of regularising employment as the most effective antidote to unemployment. The methods by which this goal is being sought will be dealt with later, but in the meanwhile the recognition that no stabilisation schemes can prevent either technological displacement or wholesale dismissals in periods of depression has compelled increasing attention to the problem of insurance against unemployment.

As in most countries, the first attempts to provide the unemployed worker with some protection against pauperism were undertaken by the trade unions. In the sixties of last century the American offshoots of the Amalgamated Society of Engineers and the Amalgamated Society of Carpenters and Joiners established unemployment benefits on the same lines as in the British branches. The Cigar Makers' International and the Deutsch-Amerikanische Typographia likewise provided their members with compensation for loss of work; but on the whole the international unions for one reason or another paid little attention to

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this type of professional risk. Most of their funds were necessarily
devoted to the fight for better wages and conditions, and the
great size of the country made it difficult to maintain the necessary
machinery for checking and paying claims. By 1927 only two
international unions — the Diamond Workers and the Sidero-
graphers — comprising a total of 488 members, were paying
unemployment benefits. Local unions were more disposed to
adopt benefit plans and were confronted with fewer administrative
difficulties in carrying them out; but as compared with total
membership the number of trade unionists covered was at any
time small, and many of the schemes initiated had to be aban­
donned for want of financial resources. In 1927 the local plans
covered 41,823 persons in fourteen different unions, mainly in the
printing trades. This figure represents about 1 per cent. of the
total membership of the American Federation of Labor.

Although trade union insurance against unemployment covered
only a small fraction of the industrial field, other schemes had
been set on foot either by employers and trade unions in co-opera­
tion or by employers on their own initiative. Of the former class
the most important is the scheme established in the men’s clothing
trade by the Amalgamated Clothing Workers in agreement with
the employers. These plans were initiated in Chicago in 1924
and in New York and Rochester in 1929. The Chicago scheme
is based on a contribution of 1 1/2 per cent. of wages by the workers
and 3 per cent. by the employers, which entitles those unemployed
to receive 30 per cent. of their full-time wages with a maximum
of $15 for a period not exceeding 7 1/2 weeks. In New York and
Rochester the employer alone contributes 1 1/2 per cent. of the
pay-roll, but the funds, as in Chicago, are administered by joint
committees. These plans are primarily designed to mitigate
the effects of seasonal unemployment, in which they have largely
answered their purpose, but even in the present depression they
have afforded valuable protection against its worst consequences
for the 55,000 workers who are covered. A somewhat similar
plan was established in the ladies’ garment industry in New York
in 1925, but it broke down after two years’ working, with the
result that there are now only a few small plans in other industries

1 American Federation of Labor: Trade Unions Study Unemployment,
2 Ibid. See also Bryce Stewart, op. cit., pp. 87-91, for fuller particulars.
covering some 8,500 persons\textsuperscript{1}. Altogether the total number of workers covered by joint schemes is about 63,500.

Finally, there are a few employers who have attempted to give their employees some protection against unemployment out of their own resources or by contributory schemes. The simplest method of doing so is by means of a "dismissal wage", usually calculated on length of service, which provides the discharged worker with a small sum to tide him over the period during which he is seeking a new job. For instance, the United States Rubber Company, when it closed down two entire factories in Connecticut, gave one week's pay for each year's service to those who had served the company for fifteen years and to all over forty-five years of age who had served ten years. The big clothing firm of Hart, Schaffner and Marx gave a bonus of $500 to a number of cutters discharged owing to the introduction of electric cutting machines. Other firms, such as the Firestone Tire and Rubber Company, regularly allow a bonus on dismissal\textsuperscript{2}. In a few cases schemes have been established by which a certain number of weeks' employment is guaranteed or compensation is given for a specified period of unemployment. Experiments on these lines are in operation with eleven firms employing about 10,000 persons\textsuperscript{3}. Finally, the General Electric Company introduced in 1930 a plan of joint contributory insurance against unemployment to be applied in any of its works where 60 per cent. of the workers were in favour of it. Each pays about 1 per cent. of wages into a fund administered by a trust, and benefits are paid in proportion to earnings\textsuperscript{4}. An important adjunct of the plan consists in the measures taken by the firm to avoid turning men off by postponing repair work until slack times, the reduction of overtime when business declines, the transfer of men from slack to busier departments, and so on. As this scheme is applicable to about 90,000 persons, it constitutes the most extensive experiment yet undertaken in unemployment insurance on a company basis.

From the foregoing review of existing provision against unemployment it will be seen that only a very small proportion of the industrial population at present enjoys any protection. Roughly, out of about 8,000,000 persons engaged in

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\textsuperscript{1} Bryce Stewart, op. cit., pp. 92-94.  
\textsuperscript{2} Monthly Labor Review, April 1930, pp. 1-3.  
\textsuperscript{3} Bryce Stewart, op. cit., pp. 95-97.  
\textsuperscript{4} For full particulars, see ibid., pp. 561-565.
manufacturing about 204,000 are covered to some extent, made up as follows:

<table>
<thead>
<tr>
<th>Scheme Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade union schemes</td>
<td>41,000</td>
</tr>
<tr>
<td>Joint schemes</td>
<td>63,000</td>
</tr>
<tr>
<td>Company schemes</td>
<td>100,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>204,000</strong></td>
</tr>
</tbody>
</table>

In other branches of industry, such as transport, mining and building, there is no insurance against unemployment.

Although the experiments hitherto inaugurated are on a small scale in comparison with the whole field, they are nevertheless interesting and significant as indicating the need felt, not only by the trade unions but also by some employers, to attempt to meet the evil of unemployment. There is no doubt that in many cases this feeling has been engendered by the realisation of the hardships caused to workers turned off on account of technological improvements or of the closing of plants through the concentration of production. Unless some means can be found either of greatly reducing unemployment or of palliating its consequences by measures taken by industry itself, the belief seems to be growing that some form of State insurance will become inevitable. As the National Industrial Conference Board, an important employers' research organisation, points out, "unemployment on any considerable scale periodically revives demands for compulsory unemployment insurance and other forms of State regulation of employment relations, such as are distasteful to many persons. And inevitably, as long as a serious maladjustment exists, these demands will receive a wider support than would otherwise be the case. Hence it is to the interest of the opponents of such legislation to eliminate so far as possible employment fluctuations."¹ It may therefore be interesting to observe the proposals which have been put forward for State insurance before reviewing the schemes for regularising employment.

**The Discussion of Compulsory Insurance**

Until very recent times the notion of compulsory State insurance against unemployment would have encountered almost universal condemnation in the United States. Of all social measures it is perhaps the most diametrically opposed to the individualist tradition under which American industry has developed. Not

only is the obligation which it places upon the employer regarded by many as an infringement of the personal liberty to conduct his business as he likes, which is proclaimed by the Constitution, but it has aroused a corresponding fear of loss of freedom on the side of labour. The American Federation of Labor was consistently opposed to any form of State insurance until last year. The chief grounds of its opposition may be found in the apprehension that Government administration would involve interference with the liberty of the individual and might impose on trade unionists the obligation to work in non-union establishments. As the Committee, to which the four resolutions in favour of unemployment insurance were referred at the 1930 Convention, expressed it:

"The American Federation of Labor has stood adamant against every proposal for the registration of aliens because such registration would seriously interfere with freedom within our borders by placing a part of our people under undue supervision and control by governing officials of various grades, opinions and susceptibilities. "Every system of unemployment insurance advanced here contemplates supervision and control by both Federal and State Governments and will require registration, not only of the aliens among the workers, but of all workers."

This view was still dominant in the Convention of 1930, but there was a strong feeling among a number of delegates in favour of a change in policy, with the result that, instead of being condemned out of hand as on previous occasions, the subject of unemployment insurance was referred back to the Executive Council for careful study.

Outside industrial circles it was generally thought sufficient to dismiss the matter by qualifying unemployment benefits as "doles", without giving much consideration as to how far such an appellation was justified either by the organisation or the working of European systems. More thoughtful criticism was founded on the undoubted difficulties in the way of applying any scheme in the United States. The task of creating a federal system to cover a country of such size would be exceedingly formidable, and would probably be exposed to strong objection on constitutional grounds. On the other hand, the adoption of State schemes would certainly be opposed on the ground that they would impose charges upon the employers in some States which were not borne by their competitors in others, and thus imply an unfair handicap in trade competition.

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In spite of these objections, however, the urgency of the problem of finding some more organised method of assisting those without work through no fault of their own has stimulated discussion in the last two years. Economists, like Professor Irving Fisher and Professor Douglas, have pointed out that insurance on the basis of single establishments, or even of single industries, cannot meet the situation adequately. The former lays it down that "to be truly successful a system of unemployment insurance or benefits must apply not to individual plants here and there, but to all establishments in all industries. . . . Unemployment insurance has been demonstrated to be perfectly practicable and necessary not only in Great Britain, Germany and other European countries, but in the United States as well". Professor Douglas considers that "while this is still anathema to most American business men, it would seem inevitable that some such plan will be necessary if the workers are to be protected adequately against some of the inevitable consequences of industrial progress and change". On the labour side Mr. Sidney Hillman, President of the Amalgamated Clothing Workers, has strongly advocated insurance as the best remedy for unemployment, while on the employers' side the tendency has been not to adopt a purely negative attitude, but rather to oppose any State intervention on the ground that the unemployment risk is one which industry should cover itself. Mr. Noel Sargent, for instance, manager of the Industrial Relations Department of the National Association of Manufacturers, has suggested that insurance companies should be permitted to underwrite unemployment insurance. Mr. Owen Young considers that further experiments with industrial insurance are desirable before resorting to any State scheme. Various proposals have been put forward with the object of avoiding the use of public money, while securing the universality necessary for any adequate system of unemployment insurance. Of these perhaps the most interesting is that promulgated by the American Association for Labor Legislation under the title, "An American Plan for Unemployment Reserve Funds", with a draft Bill attached suitable for adoption by any State legislature wishing to put it into practice. The essence of this plan is that for each industry a fund should be constituted

1 Interview with Professor Irving Fisher by Dr. Royal Meeker, 5 May 1930.
2 American Federationist, Aug. 1930, p. 949.
4 Ibid., 18 Feb. 1931.
by the contribution from employers of 1½ per cent. of their wage bill, without any deduction from wages. From this fund any worker shown to be genuinely and involuntarily unemployed, who has worked in the State for not less than twenty-six weeks in the preceding two years, shall be entitled to benefit for not more than thirteen weeks at a rate not exceeding $10 a week, provided, of course, that the fund is able to meet the claim. Administration and the adjudication of disputes are assigned to a State Commissioner aided by a Board for each industry, who among other things shall have power to award rebates to employers who can show a good record in maintaining regular employment.

This last is an interesting feature derived from the approach to the unemployment problem from the angle of accident insurance. American thought on the subject is dominated by the idea that unemployment should first of all be prevented, if possible, by giving the largest inducement to the employer to avoid turning men off, just as he should be given every encouragement to prevent accidents.

All these proposals and suggestions, however, while showing that unemployment insurance has become a live issue, indicate that its consideration is still in a very early stage, which perhaps may best be described in the words of the Committee on Unemployment appointed by the Governor of New York State:

"Perhaps some form of voluntary unemployment insurance can be devised and paid for by employers and workers analogous to group health and life insurance now so extensively supplied by insurance companies. If management does not bend itself to this task of stabilising income, however, then it seems inevitable that the State will by its own initiative seek relief for the evils of unemployment as they affect the worker. We are aware that American opinion is by no means settled on the wisdom of such elaborate systems of unemployment insurance as have been adopted in England and European continental countries. It fears addition to the already extensive bureaucracies; it hesitates to dampen effort to sustain business activity, and to discourage the provision by individual workers for bad times out of savings made when times are good. On the other hand the public conscience is not comfortable when good men anxious to work are unable to find employment to support themselves and their families.

"The subject needs patient, full, and fair-minded investigation. There needs to be much public discussion of the matter in the light not of prejudice nor misunderstanding nor arbitrary solutions, but of scientific enquiry and a complete searching of the facts and analysis of possible plans."

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1 Monthly Labor Review, Jan. 1931, p. 73.
The Governor, Mr. Franklin Roosevelt, was, in fact, not slow to act on this recommendation, for in January 1931 he convened a conference of seven of the Eastern States to consider the whole industrial situation and particularly the subject of compulsory insurance.

As a result of this meeting, Mr. Roosevelt announced that while neither the Governors nor their respective States had been committed to any programme of unemployment insurance, it was unanimously felt "that the subject deserves further immediate study. It will be the object of subsequent conferences of the representatives from the seven States to examine into unemployment reserves or insurance as a preventative or relief for unemployment." 1

It is certainly significant to find such a study being officially undertaken, not by a single State but by the co-operative effort of seven of the principal industrial States of the Union. Nor has the problem failed to occupy the attention of Congress. Early in 1929 the Senate Committee on Education and Labor reported that Government interference in the establishment and direction of unemployment insurance was not necessary and not advisable, but that private employers should adopt a system of unemployment insurance best suited to their particular industries.

In January 1931, however, Senator Wagner introduced a Bill proposing the appropriation of $100,000,000 annually to be distributed among the States in proportion to the number of their wage earners, the amount of federal aid given to any State not being in excess of one-third of the sum voted by State, municipal or private contributions for that year. The scheme was to be administered by the United States Employment Service, and every State desiring to participate would have to create an unemployment insurance fund administered under State auspices. This Bill made no progress, but in pursuance of a resolution proposed by Senator Wagner and adopted by the Senate, a committee of three Senators, including Senator Wagner himself, has been appointed to study the question of national unemployment insurance, and to report to the next Congress as to the practicability of a federal system either operated or supervised directly by the Government. 2

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2 Ibid., 5 March 1931.
It may be said, therefore, that although the principal emphasis is laid on the prevention of unemployment through the better organisation of industry, it is growingly recognised in the United States that even under the most favourable conditions a good deal of unemployment, whether it be due to seasonal, technological or depressional causes, is unavoidable. To meet it when it comes, private charity is no longer regarded as an adequate or satisfactory expedient. The demand that the State shall take a direct share in dealing with the problem has already found expression in the passage of an Act for the reconstitution of the Federal Employment Service, and in the increasing attention paid to the advance planning and ordered execution of public works. Some schemes of voluntary insurance organised by trade unions or by employers or on a joint basis are in operation, but they only cover a small fraction of the field. The conviction that all these measures will not be sufficient is suggested by the active discussion now proceeding as to the desirability of some system of compulsory insurance, either organised by industry itself or, failing that, by the State. Bills have already been introduced into sixteen State legislatures for the purpose of establishing such schemes, and in the opinion of some of the best-qualified students of the problem, it is probable that in some States experiments will be made. The rapidity and the extent of their adoption will, however, largely depend on the duration of the depression. All that can be safely said at present is that a great deal of previous opposition to the principle of unemployment insurance has been removed, and that a growing volume of opinion in favour of experimentation is being developed. Whatever action is taken, however, and whatever its scope, it is certain that insurance will continue to be regarded as a palliative to which recourse should be avoided as far as can possibly be achieved. The most distinctive contribution made by American economic thinking to the solution of the unemployment question has lain in its endeavour to work out constructive plans to secure stable employment. It remains to examine this important aspect of the problem.
CHAPTER VI

REGULARISATION OF EMPLOYMENT

It is now being generally recognised that unemployment is a form of waste. The involuntary idleness of human beings is just as much a failure to utilise productive power as is the enforced idleness of machines. When he is no longer employed, the worker ceases to be a consumer. In recent years "the consumer purchasing power of the wage-earning population has become better recognised, and the loss of an appreciable portion of this buying power is felt not only by local merchants and dealers, but throughout industry as well". The evils of unemployment are not less evident if the worker is regarded as a producer. The progress of scientific management has shown the drawbacks to production involved in rapid turnover of personnel and in intermittent employment. The cost of training or retraining new workers is always considerable, while the feeling of security engendered by steady employment has been found to be a valuable asset in increasing productivity. Not only does it remove any temptation to "ca' canny", but the absence of financial worry and anxiety for the future has been found to improve concentration on the work in hand. The prevention of unemployment is therefore not only a social, but also an economic preoccupation. Even if the hardships and demoralisation with which idleness threatens the worker are minimised, as is perhaps too often the case, or even left out of account altogether, it still remains true that unemployment is also a serious matter for industry itself. Ultimately, its prevention is almost as much in the interest of the employer as in that of the worker himself.

Starting from this principle, American thought has been largely directed towards the regularisation of employment. For the moment it may be assumed that this object would be achieved by regularising production, though, as will be noted later, this is not necessarily the case. It will, however, be seen from the enumera-

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1 Lay-off and its Prevention, p. 2.
tion in Chapters II and III of some of the factors which are apt to check consumption or to disturb the even flow of production that there are many and diverse causes which may upset the economic balance. The notion of regularisation is not therefore simple or easy to define. Although it means ultimately the maintenance of equilibrium between production and consumption, this is not really a single problem, but a series of different problems which require separate examination.

In the first place, the individual employer is faced with the continuous problem of preserving a steady stream of production and of employment despite the seasonal variations to which the demand for his product may be subjected. If he succeeds in this task, he may still be faced by radical transformations in his industry through technological changes. Such changes may also threaten to produce a general state of overproduction in the whole industry, so that the regulation of employment can no longer be ensured by the individual manufacturer, but can only be effected by collective action on the part of all the manufacturers of that particular product. But even the most competent regulation of a particular industry will not suffice to meet the wider fluctuations affecting purchasing power, demand and prices over the whole industrial field. As the present depression has profusely shown, a whole network of elements — economic, financial, political and psychological — may combine to bring about a general state of depression, which no industry in isolation can prevent. Moreover, these elements are liable to be not merely national but world-wide in their scope, so that the problem of regularising employment becomes an international problem of great magnitude and complexity. In order to obtain a clearer view, it is therefore necessary to consider each of these various phases separately.

**Avoidance of Seasonal and Intermittent Unemployment**

In order to prevent seasonal unemployment, it is necessary to devise means of spreading work evenly over the year, so as to eliminate peaks of activity at certain seasons and declines at others. Possibly in the past less attention was given to this question in the United States than in other industrial countries; but whether this be so or not, conditions obviously vary very much from industry to industry. Some trades, such as building, clothing, automobiles and coal-mining, are subject to more or
less violent fluctuation of seasonal demand ultimately traceable to climatic circumstances. Others, such as household articles, furniture and electric appliances, are less affected by seasonal influences. On the whole, however, seasonal variations seem to be becoming more rather than less prevalent in the United States. Dr. Feldman, who has made an intensive study of the problem, goes so far as to state: "That it is the exception rather than the rule for any trade to maintain fairly equable activity throughout the year is the conclusion resulting from various detailed enquiries. Indeed, investigators have maintained that it is almost incorrect to speak of a 'seasonal trade', because there are practically no trades that are not subject to seasonal fluctuations".

There is no doubt that much can be accomplished by the individual employer to obviate such fluctuations and the unemployment which they cause. The most important factor in improving stability lies in regularising demand, whether by converting the consumer to the view that the product is not needed at one time of year only, by developing side lines to meet the falling off during the slack season, by better systems of sales and distribution, or by other such expedients. By such methods much can be done to spread out employment more evenly; and even failing a regular outflow, by carrying stocks at certain times it is possible to plan the production programme throughout the year instead of being guided by the requirements of the immediate future alone. The movement for scientific management in the United States has always laid great stress on this aspect of the problem and has constantly preached the necessity of reducing seasonal unemployment by intelligent anticipation of future needs. A number of firms have set up elaborate organisations for forecasting, upon which the programme for the whole year may be laid out in such a way as to avoid slackness of production during the periods of slackness in demand. The centralisation of employment and discharge in a single department manned by a properly trained staff together with arrangements for transferring men from one job to another within the plant has also tended to reduce the labour turnover.

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2 This aspect of the question is fully treated by Dr. Feldman, *op. cit.*, Chapters IV-IX.
3 For a good example, see *Trade Unions Study Unemployment*, pp. 86-92 ("Employment Can Be Regularised", by Henry S. Dennison).
of direct study of its seasonal unemployment, it has been found possible by various expedients to reduce very substantially the slowing-down of construction in the winter months. In the coal industry, on the other hand, owing to over-expansion, short time is a chronic condition and little progress has been made towards stabilisation.

Important results have been achieved in the cases where the problem has been tackled by joint action on the part of management and the trade unions. The system of co-operation established on the Baltimore and Ohio, Canadian National, and one or two other railways has had the effect of making employment in the repair shops much more regular. The scheme worked by the employers and the unions in the men's clothing trade, by which the former guarantee work for a certain number of weeks, has also concentrated effort on spreading work out more evenly instead of resorting to extensive overtime and emergency engagements at rush seasons.

These and other experiences have generally been found beneficial, not only to the worker who is afforded steady work — in the vast majority of cases his first preoccupation — but also to the employer. Though in some cases the latter may have to incur additional charges for storing larger stocks, this expenditure is more than outweighed by savings in other directions. The hiring of labour for short periods is always expensive. During the first period of training efficiency is relatively low. Machines and space have to be provided which are not needed in normal periods. Exceptional wages have to be offered to attract qualified operatives. Finally, the certainty of continued employment is the most effectual antidote to the tendency to “go slow on the job”, which is so frequently found in unstable industries.

Nevertheless, though a great deal can unquestionably be done by skilful planning on the part of management to ensure regularity of production, it seems too much to hope for the total elimination of seasonal influences. Climatic changes are bound to affect demand. Perishable articles cannot be manufactured for stock, but must be quickly marketed. Changes of fashion may at any time upset calculations. Indeed, as the diversity of demand and the versatility of supply are steadily increasing with the growth

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1 Ibid., pp. 93-97.
2 See Chapter V, p. 76.
of wealth and the inexhaustible fertility of invention, it may be surmised that the public taste will become more unstable and therefore more difficult to forecast with accuracy.

Although, therefore, a great deal has been accomplished in the direction of eradicating seasonal and intermittent unemployment, and much more can doubtless be done, there will always be certain periods of the year in which the slackness of certain trades increases the aggregate amount of unemployment, and the difficulty of adjusting production to probable demand is likely to be magnified by the growing complication and variety of human wants.

It may be pointed out, however, that although intermittent idleness is not the most disastrous form of unemployment, it involves all the characteristic wastes which are inherent in all unemployment. Insecurity of income cripples the worker's power as a purchaser and is generally agreed to drive him towards pauperism more surely than steady employment at a lower rate of wages. Insecurity of production adds enormously to costs. For the employer, as for the worker, the ideal condition is steady output without violent fluctuations or interruptions in the operation of his plant. Labour turnover and unequal running of machinery alike swell overhead costs. The net result is higher prices on the one hand and reduced buying power on the other; in other words, two powerful factors in weakening the consuming market. For these reasons, quite apart from the hardships, loss of skill and frequently casualisation imposed on the worker himself, the reduction of seasonal unemployment is of primary importance to industry.

**Avoidance of Technological Unemployment**

Seasonal unemployment, though widespread and serious, does not constitute the largest or the most difficult part of the general problem. In many seasonal trades, notably in the building and clothing trades, it is partially compensated by higher wages in the busy periods, and where the limits of the slack season are fairly well known beforehand the worker is often able to secure alternative employment which will carry him through it. The effects of technological unemployment are much more formidable, as has been pointed out in Chapter IV, because its advent can seldom be foreseen and its probable duration is unpredictable. Moreover, prevention of unemployment of this kind presents problems of far greater complexity than in the case of seasonal unemployment, because it often involves factors outside the control of the individual employer.
Probably no one would advocate that greater efficiency should not be sought by introducing mechanical improvements, by reducing unnecessary labour and by eliminating useless competition by mergers in suitable cases. The vast progress in living standards and labour conditions which has been effected by these methods in the past century is sufficient to rule out any serious plea in favour of complete stabilisation, even if it were attainable. Moreover, no such plea has been put forward from the workers' side in the United States. In recent years the American Federation of Labor has consistently taken the view that increased production is in the interest of the worker as much as of the employer. It may be taken for granted that as science continues to extend its control over the mechanical, physical, chemical and electrical domains, the possibilities of greater and cheaper production will continue to offer themselves at least as abundantly in the future as in the past few years.

Indeed, it is not unlikely that invention will proceed at an even faster pace. A new phase of industrial evolution appears to have opened, which may be expected to effect remarkable transformations in the conditions of production and expansions in the range of consumption throughout the world, always provided that the international monetary system can be rendered sufficiently flexible and can be adequately controlled. If this process moves forward smoothly, it may be anticipated that the general level of comfort will be further broadened and deepened, with the result that a smaller proportion of the population will be required to do the work of agricultural and industrial production, and a larger proportion will be engaged in ministering to all kinds of wants which spring from the greater leisure and the greater spending power of the great mass of the people. Further advances will be made in eliminating the dangers to life and health involved in exhausting physical work and unhealthy processes by the use of machinery.

Social progress of this kind, however, is bought at the price of constant readjustments, which inevitably inflict considerable hardships on the individuals concerned. The extent of these hardships and the number of persons affected will depend on the tempo which governs the transition, and, as has been already noticed, there seems ground for thinking that in the past few years the tempo of American transition has been exceedingly rapid. Even so, effective measures have frequently been taken to prevent any widespread displacement. New machines or new processes have
been introduced in such a way as to enable the working force to be progressively reduced, not by turning off large numbers of men, but by no longer filling the vacancies caused by death or superannuation. The adoption of pension plans has helped to soften the effects of technological change. In some cases the transition has been smoothly conducted by inviting the co-operation of the men’s representatives. Where such methods are adopted, the amount of hardship caused by technological unemployment is reduced to a minimum.

It does not follow, however, that the speed of innovation can always be so regulated. Under conditions of unlimited competition it may be imperative to carry through drastic economies to avoid the total extinction of a business, because rivals provided with more modern equipment have entered the arena. In such circumstances to discharge a portion of the staff may be the only alternative to discharging the whole of it within a short time. A factory may be running on perfectly efficient lines, and its management may have succeeded in stabilising production and employment by intelligent forecasting and by good sales organisation. But inventive progress, utilised by some enterprising rival, may radically alter its favourable situation in a few months. This fear of competition has necessarily weakened the security not only of labour but also of capital. In order to protect themselves against unforeseen technical advancement which may quickly render their plants out of date and unremunerative, manufacturers are inclined to demand a return on their capital outlay over a very short period. Out of 200 large representative firms questioned on this point by the President’s Economic Survey, 43.6 per cent. required new equipment to return its costs in two years, and 64.1 per cent. in three years or less.

This rapid turnover presumably means increased costs and the allocation of a higher proportion of profits to renewal of plant than in former times. When an improved process or machine is discovered, firms which might have been content to wear out their old plant by running it some years longer are often impelled to scrap it and to introduce new equipment at considerable expense, lest some competitor should steal a march on them. The result is usually a further displacement of labour, due not so much to the immediate

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1 In 1925 there were 245 plans in the United States, covering 2,800,000 workers. See *Industrial Pensions in the United States* (New York, National Industrial Conference Board, 1925), and H. B. Butler: *Industrial Relations in the United States* (Geneva, International Labour Office, 1927), pp. 80-81.

2 *Recent Economic Changes*, p. 139.
need for greater or cheaper production as to the apprehension of competition.

Of course there is nothing new in this process. The advance of industry has always been achieved by the replacement of older and inferior equipment by newer and better equipment. No one would maintain that constant improvement in productive methods and power was not in itself desirable. But, again, the question of rhythm or tempo may be stressed. The question may be asked whether it is not possible that such a speed may be attained as to render a normally economic process temporarily uneconomic.

**Regularisation of Production**

Under such circumstances the threat of overproduction in a particular industry becomes a reality. As has been shown above, productive capacity has in fact outrun demand in several branches of American industry. To prevent such an occurrence is beyond the power of the individual manufacturer. It is therefore suggested that regularisation of production and employment can only be effected by a common policy pursued by all the producers of the article in question.

Based on reflections such as these, a movement appears to be developing in the direction of moderating the pace of rationalisation and of restraining the unlimited multiplication of the means of production by agreement. Public sentiment in the United States has been strongly opposed to monopolies in the past, and the anti-trust laws severely limit the scope of permissible agreement in restraint of trade. In recent years, however, mergers of various kinds have been formed in increasing numbers within the limits of the law, and at the present time there is a considerable movement in favour of revising the law itself. Speaking of the conditions in the bituminous coal industry before the Annual Convention of the American Federation of Labor last October, Mr. Hoover said: "It certainly is not the purpose of our competitive system that it should produce a competition which destroys stability in an industry and reduces to poverty all those within it. . . . If our regulatory laws be at fault, they should be revised."¹ The President followed this statement up by recommending "that the Congress institute an enquiry into some aspects of the economic working of these laws."² In some cases action is no

² *Message to Congress, Dec. 1930.*
doubt already taken by groups which are powerful enough to control the greater part of a market to prevent over-rapid technical development. Such methods are usually condemned as anti-social, and yet there may very well be cases in which they can be justified on social grounds. In most instances, however, such methods cannot be applied. Even where the internal market alone is concerned, any attempt to control production and so to stabilise employment can as a rule only succeed by the establishment of some binding cartel or other similar organisation comprising the great majority of the producers of a particular commodity.

It is in order to facilitate such arrangements that the repeal of the anti-trust laws has been demanded; but even if it were obtained, it would not be adequate to meet the situation in all industries. Those which depend to any considerable extent on overseas markets have to face the competition not only of domestic but also of foreign rivals, who may likewise take advantage of new methods and new machinery. The rhythm of technical change and of production is therefore not always susceptible to national regulation. In the modern world these problems, and with them in a certain degree the problem of technological unemployment, have become international, as is witnessed by the number of international cartels and similar trade arrangements already in existence, some of which include American participation, and by the efforts which are now being made to regularise the production of sugar and the marketing of wheat on a world basis.

From the foregoing remarks it would seem that any far-reaching limitation or retardation of the rationalising process is improbable. Here and there, where more or less monopolistic conditions exist, they can and have been attempted with some measure of success. But even if the legal obstacles in the path of combinations were removed, the number that would actually come into being would still in all likelihood remain inconsiderable, as few things are more difficult than to procure harmonious and durable co-operation among commercial competitors. Finally, there would yet remain industries, which may be expected to become more numerous, where national would have to be supplemented by international agreement before it became effective. The check on rationalisation by concerted action is not therefore likely to arrest its progress to any great extent.

The further check furnished by the reduction of wages consequent upon the increase of the "reserve of labour" due to wholesale displacements through technological causes has also
been seen to be only very partially operative. Even if wages are lowered on this account, the progress of rationalisation will not necessarily be thereby restrained. There would not seem to be any normal economic hindrance which may be relied upon to slacken the pace of technical development and the unemployment which it causes, except the failure of the consumer to keep step with the producer. Here again, it is necessary to distinguish between a discrepancy between production and consumption in a single industry and over industry as a whole. As regards the former case, it is evident that such a discrepancy can occur, and that it is possible to obviate it to some extent by planning and co-ordinating the production of a single industry through the co-operative action of the producers, either nationally or internationally, in such a way as to harmonise the volume of output with the volume of effective demand for their product. When business conditions are relatively stable, action of this kind may have considerable effect, and the present movement towards large-scale production may perhaps render co-operation on these lines more necessary than in the past.

The benefits of trade combinations are, however, not by any means universally admitted. Their critics hold that the tendency to overproduction is itself a consequence of the concentration of business in huge organisations. Some of them even contend that medium and small-scale businesses are less liable to outrun consumption and that mergers and trade agreements afford no remedy for overproduction. This view has been forcibly urged by Dr. Virgil Jordan, of the McGraw-Hill Publishing Company, in these terms:

"Such economies as have been achieved through industrial concentration have depended almost exclusively upon mass production of standardised products. For a time, no doubt, this process has tended to widen the market by bringing the product within the range of purchasing power of a large proportion of the population, and by increasing the purchasing power of those parts of the working population involved in the mass production industries. In the end, however, this process has tended to result in overproduction. It has involved constantly increasing volume of output per unit of time. This increase has not only led to increasing distribution costs, but it has tended to force up the rate of consumption per unit of time, which, beyond limits, tends to reduce values and prices. One reason for this breaking-down of the time equation of production and consumption is that leisure for consumption has not increased as rapidly as the output during the working

1 See Chapter IV, pp. 60-62.
hours. Another equally important reason is that the increased purchasing power of those affected by the mass production industries has altered their consumption psychology. Instead of being satisfied with an increased consumption of standardised products within the time available, the consuming public has increasingly preferred to spend its larger purchasing power upon more individualised and varied products, especially in the United States where class or group standards of consumption are not fixed by custom or tradition. In short, the demand for increased leisure time for consumption and higher quality or greater individuality of products consumed has tended both to diminish, relatively, the amount of consumer purchasing power available for the low-priced, standardised mass products and to increase the average price level of goods and services most in consumer demand. The result has been an overproduction and undervaluation of standardised mass products, and an underproduction or overvaluation of leisure, of services, and of products with individualistic quality appeal."

Dr. Jordan proceeds to argue that if his analysis is correct, the limitation of production by trade agreements is likely to aggravate rather than diminish the evil of overproduction, as tending to maintain the existence of marginal producers who would otherwise be eliminated by the operation of "natural economic selection". In all probability, no universal principle can be applied in the matter of industrial structure. It has to adapt itself to very different conditions in different industries; but it is clear that the problem of gearing production to consumption is becoming more rather than less complicated, as the availability of capital facilitates new enterprise, as the rapidity of technical improvement is apt to revolutionise the conditions of production, and as the variegation of taste and fashion renders the anticipation of demand increasingly difficult.

Moreover, as has been already suggested, even if these problems were solved with sufficient success to enable production to be harmonised with consumption, it would not invariably follow that employment would also be regularised. It might still happen that technological changes would in some instances reduce the working force even in an industry which had managed to gear its output to correspond fairly satisfactorily to current demand. It is primarily this consideration which has led to the demand for shorter hours. Mechanical invention in almost every field has made it possible to produce far more in less time with less labour. Past progress in this direction led to a general reduction in the hours of work over the last hundred years. Hence it is now urged that a further shortening of hours is becoming imperative, if the widespread displacement of labour and consequent increase in the number of "redundant workers" is to be avoided.
This remedy has been advocated by the American Federation of Labor for many years past. The first item in their programme for meeting unemployment is the institution of the five-day week of forty hours and holidays with pay. Already considerable advances have been made in this direction, and it is claimed that 532,894 trade unionists already enjoy the forty-hour week, mostly in the building and electrical trades. Mr. Ford and a number of other employers have also introduced the forty-hour week, and the result of the depression has been to stimulate the movement. A clear distinction must be drawn, however, between short time and a shorter working week. The former is simply a temporary expedient for curtailing production and spreading out the available work by employing the same number of persons for fewer hours with correspondingly reduced earnings. The latter is a permanent reduction of hours of labour, and unless the same weekly wages are paid as for the longer week, the earnings and the purchasing power of the workers will be proportionately reduced. There can be little doubt that a further curtailment of hours will result from the increased facilities for production. This process has already brought about a progressive reduction of the standard week from seventy-two to sixty, from sixty to fifty-four and from fifty-four to forty-eight in the last hundred years. The shortening of hours has gone hand in hand with the improvement of real wages, and there is no reason why the same tendencies should not continue in the future. Their development is, however, conditioned by the development of productive efficiency and purchasing power. In industries where economic conditions are favourable, shorter hours will gradually be adopted without involving any diminution of wage rates. In some cases such measures may be expected to increase, or at least to stabilise, the number of persons employed in the industry, and thus to mitigate the effects of technological displacement.

It is evident, however, that the shortening of hours cannot by itself offer a complete cure for unemployment. Recognising this, the American Federation of Labor has put forward another important proposal to regularise employment. In the words of the last Report of the Executive Council, "while individual production establishments must work out the problem of stabili-
sation for themselves, there is needed in addition team work by the whole industry and team work between all industries. To accomplish this there should be comprehensive planning by an advisory body, representative of all production and consumer groups. Such a national economic council should plan the machinery for achieving economic equilibrium, and undertake to secure the co-operation of voluntary associations and governmental agencies in a co-ordinated undertaking." It will be seen that this scheme for "national planning" goes far beyond the boundaries not only of the technological problem but also of regularising production in any particular industry. It aims at nothing less than so co-ordinating the activities of industry as a whole and so conditioning them to consumption as to avert even cyclical depressions. It reaches down to the fundamental problem of discovering and applying a "technique of balance" with a view to avoiding the most formidable type of unemployment such as is created by a general decline in business activity. To attempt to treat in a small space, a question upon which libraries have been written is of course impossible, but an indication of some of the principal points which are emerging in American discussion may not be misplaced as a conclusion to this sketch of the unemployment problem as it presents itself in the United States.

The Problem of Cyclical Unemployment

In a previous chapter it has already been shown that some of the elements in the problem of maintaining economic balance are of a national, while others are of an international, character. A great deal of attention has been paid to the former category in the United States, and increasing attention is now being devoted to the latter. Not only has the study of the "business cycle" been carried further there than in other countries, but practical attempts have been made to apply some of the lessons derived from that study.

The basic feature of every modern depression is an excess of production over consumption. In former times, crises were brought about by scarcity. Nowadays they spring from super-abundance of productive capacity in relation to the amount of effective purchasing power available. The consequence is a falling-off of demand causing a decline in prices, which again results in restriction of production and unemployment. It is unnecessary to consider here whether this process is in fact cyclical
or periodical, whether, if this be the case, the present depression can safely be ascribed entirely to the normal working of the "cycle", or whether it may not have been aggravated by the intervention of abnormal circumstances. It is, however, generally recognised that the depressions, which have occurred at more or less regular intervals in recent times, constitute a serious weakness in the economic system, and that by concerted and intelligent action it ought not to be impossible to mitigate their gravity, if not to avert them altogether.

Two expedients have been so far widely discussed, and to some extent practised, in the United States as means to arresting the cyclical process, one of a remedial, the other of a preventive, character; first, the initiation of public works, and secondly the control of credit through the Federal Reserve System. The former expedient is intended to halt the course of a depression once it has set in, through restoring the purchasing power of as many as possible of those thrown out of work by employing them on works of public utility. Some account has already been given of the efforts made, not without an appreciable measure of success, to adapt the works programmes to be carried out by Federal, State and municipal authorities to the state of the employment market. This policy is now to be considerably strengthened and developed by the establishment of an Employment Stabilisation Board. The effect of such measures is to restore the earning power of a certain number of persons who would otherwise be out of work by means of public money raised by loan or taxation. The purchasing power of these persons is maintained to the extent of their wages, and in so far as the money which supplies those wages would otherwise have been withheld from consumptive expenditure in bank balances or otherwise, the effect is to maintain the level of consumption and prices at a higher mark than would otherwise have been the case. Incidentally, it may be remarked that the same is true in the case of assistance given to the unemployed out of public relief or State insurance funds. Although industry may have to contribute substantially to such funds in the form of taxation, its contributions are not lost, but come back into circulation in the form of wages expended on consumers' goods.

Theoretically, it might be possible, by means of increasing the amount of money available, to finance public works to such an

\[1\] See Chapter V, pp. 71-73.
extent as to arrest the fall of prices and to restore a large proportion of those displaced to employment. It has been claimed that the expenditure of an additional $1,666,000,000 on public works in 1921 would have reabsorbed all these thrown out of factory employment by the depression of that year. In practice, however, such a scheme would encounter numerous obstacles. It would be assailed on the ground that it involved inflation of the currency, though such would not be a necessary consequence, or on the ground that it was withdrawing money from industry, though the utilisation of large sums for such a purpose would only be contemplated at times when the demand for capital for industrial enterprise was markedly subnormal. Apart, however, from these monetary considerations, the material difficulty of rapidly initiating a sufficient quantity of public work of a remunerative character to absorb those displaced by a cyclical depression would be immense. Moreover, the type of employment afforded would often be quite unsuitable for many of those thrown out of work.

At best, however, a comprehensive public works policy is a remedy rather than a preventive of "cyclical" unemployment. It only begins to operate when the normal volume of industrial employment has considerably shrunk owing to the depression of trade. The control of credit is a far more ambitious measure designed not to restore employment when depression has set in so much as to prevent unemployment by the maintenance of prosperous conditions. The fact that in practically every country the rise and fall of employment corresponds to the rise and fall of prices in closely parallel curves strongly suggests that the regularisation of prices would go far to ensure the regularisation of employment. Price fluctuation means that the balance between production and consumption has been disturbed. If, therefore, it were possible to effect the stabilisation of prices, the maintenance of equilibrium would apparently be assured. A great deal of thought has been devoted to these questions in the United States, which has undoubtedly made a very valuable contribution to the most fundamental of all economic problems. Moreover, a sustained attempt has been made to translate theory into practice by the use of banking policy to prevent price fluctuations. Since the Federal Reserve System was inaugurated, a considerable degree of success has been achieved in checking the inflation of

1 Bryce Stewart, op. cit., p. 59.
prices through the use of the discount rate and through the purchase and sale of securities in the open market. Although the machinery is new and the technique of its manipulation may be said to be still experimental, its results are sufficient to indicate a real advance. The steadiness of prices and the even run of business from 1922 to 1929 may be largely attributed to the efficacy of Federal Reserve action. There came a point, however, at which the equilibrium so long maintained began to oscillate, and finally broke altogether. Not only did a depression once more supervene, but the worst depression hitherto recorded. In spite of the partial successes obtained in mastering the technique of balance, it was seen still to lie beyond the compass of existing knowledge and existing institutions.

In previous chapters some of the internal factors which made for disturbance of balance have been summarily mentioned. On the one hand, the level of consumption was deceptively high during the boom period owing to the expansion of purchasing power through consumers' credit in various forms. In response to this partially artificial demand production naturally expanded. The availability of capital rendered expansion easy; hence, there was a tendency in some industries to multiply productive capacity in excess not only of the actual demand, but even of any potential demand of the home market. This was also true of some branches of agriculture, notably wheat and cotton; so that both in industry and agriculture a surplus became available which could only be disposed of abroad, whereby an international element was introduced into the problem of maintaining the national equilibrium. Again, it appeared that other elements of instability might be found in the facts that the growth of employment was probably not keeping pace with the displacement of labour by mechanical invention and that the aggregate wages of industry were not increasing, although output per capita had been greatly augmented. As a consequence, a smaller proportion of the product of industry was going to wages and a larger proportion to capital. Whereas the former would be almost entirely expended on consumers' goods, the latter might be spent on capital goods, but might also be retained as savings or withheld from consumptive expenditure for use in speculation. Finally, it was noted that once recession had set in, it was quickly aggravated by the excessive want of confidence, which came as a natural reaction from the excessive optimism of the boom period, and by the great reduction of purchasing power caused by widespread unemployment.
An enumeration of these various factors is sufficient to absolve the Federal Reserve System from any serious censure, if in the first years of its existence it failed to cope with them successfully. It has been contended that it might have arrested the inflation of stock exchange prices, which was as dangerous as an inflation of commodity prices, by a deliberate campaign of selling securities. In answer it is pointed out that such a campaign would have inevitably destroyed confidence and so brought the period of prosperity to a more or less abrupt conclusion. If such action had been taken, it may be that the subsequent depression would have been less severe than that which finally occurred; but few people would have given credit to the Federal Reserve authorities for preserving them from a danger which would have seemed imaginary, while most people would have held them directly to blame for provoking a depression. Any body of men might reasonably hesitate to incur such a responsibility; but this only illustrates one of the greatest difficulties in devising a technique of balance, which may be expected to operate with any approach to abstract precision, under the stress of the psychological and other influences which necessarily contribute to human decisions.

THE INTERNATIONAL ASPECTS OF THE PROBLEM

But even allowing for the inherent weakness of all human institutions, it may reasonably be hoped that with further experience and wider general understanding of the problem, it will be found possible to control the factors which determine internal equilibrium far more successfully than has been done in the past. The question arises, however, whether even on this assumption, balance would really be achieved by any single nation acting alone.

Even if we imagine a country endowed with a banking machinery so perfect, directed by a policy so wisely and objectively conceived and applied that the maintenance of internal balance was practically assured, would there not still be elements outside its control, which might render its operation partially or totally nugatory? Even if everything conceivable had been done by the Federal Reserve authorities to secure the position in the United States, would it have been adequate to prevent the general decline of commodity prices throughout the world? As has already been suggested in Chapter II, there were factors lying wholly or mainly beyond American control, which undoubtedly contributed very
materially to the depression in the United States as in the rest of the world. The economic system being now world-wide, disease or disturbance in any part of it inevitably affects the whole. The tariff policies, credit policies and monetary policies of all nations engaged in international commerce go far not only to determine the economic conditions which prevail in each one of them, but in their aggregate to determine the general state of world economy, which is bound to have a greater or lesser influence on each of its constituent parts in proportion to the importance of its international commitments and relationships. There is therefore a whole series of factors of primary importance to the economic life of nations which lies outside the control of any one of them. It is being more clearly realised in the United States that these international factors are of primary importance to American well-being. The President emphasised them in his last Message to Congress, and as the crisis continues bankers, industrialists and economists are devoting an attention to them which they have not previously received. It may therefore be fitting to recapitulate¹ some of them in conclusion, if, as appears to be the case, the problem of regularising employment in the United States is ultimately identical for the most part with the problem of regularising employment everywhere.

In the first place may be noted those factors having an international bearing which are purely industrial in character. It has been already pointed out that in some cases the multiplication of the means of production proceeds faster than the development of the consumption of a particular product, but that it may prove impossible to regulate and to adapt output to the available market on a national basis. This fact has already been recognised by the formation of international cartels and other forms of combination for the purpose of fixing prices and limiting production. The adoption of labour-saving machinery or of improved processes is not the monopoly of any one country. In fact, the growth of mechanisation tends rather to react to the disadvantage of the highly

¹ The following recapitulation largely follows the resolution setting out the international causes of unemployment which was unanimously adopted by the Governing Body of the International Labour Office in January 1931. As representing the agreed views of the representatives of twelve Governments, including those of the eight States of chief industrial importance in the world (with the exception of the United States), as well as of the organised employers and organised workers, it possesses special authority. Many of the same considerations may be found in some of the Resolutions adopted by the International Chamber of Commerce at its Washington meeting in May 1931. These resolutions are printed in the Appendices.
industrialised countries, one of whose principal assets was the skill of their workpeople. For this skill, the fruit of long training and education, machinery can now frequently be substituted. It thus becomes possible for countries without any industrial tradition to manufacture some kinds of articles which they previously imported from more highly industrialised parts of the world. The most striking example of this development is to be found in the cotton textile industry, but what is true of cotton is true of a number of other articles, and is likely to become more and more general with the spread of the use of automatic or semi-automatic machinery for manufacture.

The industrialisation of new areas, though in itself undoubtedly desirable as promoting the productive, and therefore the consumptive, power of the world, is nevertheless accompanied by disturbances and readjustments in international commerce. While they are proceeding, considerable unemployment may well result in certain countries. Again, the wider distribution of industrial production in the world tends to produce other disturbances when the new areas not only supply many of their own wants, but themselves enter the arena of international competition as exporting countries. As long as competition was mainly confined to countries possessing standards of living and cultural requirements, even as nearly comparable as those obtaining in Western Europe and the United States, the differential element introduced by variations in wages and labour conditions was relatively unimportant. With the spread of industrialisation, however, not only to Eastern Europe, but to Japan, India, China and Russia, whose working populations are accustomed to standards of living which would be deemed quite insufficient in the United States or in Western Europe, differences in labour costs may become so considerable as to create a new factor in international trade. If it is the case that, using the same machine, an Oriental worker can produce even approximately the same amount as the American or European worker, the former's more modest requirements for food, clothes and housing may constitute an important differential in the cost of production. From this source yet another factor may therefore arise which will upset the prevailing equilibrium, divert the flow of international commerce into new channels, and bring about unemployment in some industries while readjustment is taking place. It is for this reason that the Conventions adopted by the annual Conference of the International Labour Organisation setting general standards for
industrial employment have become increasingly necessary with the intensification of international competition.

The foregoing factors tending to disturb the international equilibrium are concerned with industry itself. A second category is rather concerned with the production of foodstuffs and raw materials. The prosperity of the farmer and the miner is of the greatest importance to the manufacturer, as these two classes between them represent a very considerable proportion of the world's consuming market. If, therefore, the prices of wheat, coffee, sugar, cotton, coal, rubber, copper and other raw materials decline to such an extent as to reduce substantially the income of the farmer and to force reductions in the wages of the miner, manufacturing industry is bound to suffer. One of the most characteristic features of the present depression has been just such a decline in the prices of such products. In practically every case, moreover, these prices are not capable of being fixed by reference to the production of any single country. Inasmuch as they are produced in many parts of the world in large quantities, their value is determined by the demand of the world as a whole, and is accordingly not susceptible to regulation or control unless it be by an international agreement. The recent international discussions with regard to the regulation of the production of rubber, sugar and wheat are sufficient evidence of this truth.

Thirdly, the international exchange of commodities, whether foodstuffs, raw materials or manufactured articles, gives rise to another set of factors which may considerably affect the general run of business and employment. Offensive and defensive measures for the fostering of export trade or the preservation of internal markets by means of tariffs, bounties, prohibitions and other forms of interference with commercial intercourse are often apt to produce disturbances, which hamper and retard the development of general prosperity. However justifiable such measures may be in particular cases, the resolutions of the World Economic Conference of 1927 indicate clearly enough the dangers which general and unrestrained economic nationalism may be expected to generate. That Conference pointed to the fact that "harmful effects upon production and trade result from the high and constantly changing tariffs which are applied in many countries" and declared "that the time has come to put an end to the increase in tariffs and to move in the opposite direction". Since that

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date a series of efforts have been made to carry out this recommendation. The meagre success hitherto achieved may be taken as proving the difficulty and the reality of the problem, but not as disproving the correctness of the Conference's conclusions.

A fourth set of factors of an international character, which may profoundly affect prosperity, and therefore employment, in every country is linked up with the current value and distribution of the precious metals. It is believed by some bankers and economists that the recent fall in world prices has been caused, to some extent at any rate, by the shortage of the supply of gold in relation to the demand for currency expansion created by the growth of the world's production. A larger body of opinion, while not admitting that there is any real shortage of gold at the present time, is inclined to think that mal-distribution of gold has produced a shortage of purchasing power in some parts of the world and has thus tended to weaken prices. Although there is as yet no general measure of agreement as to the relation of gold to the present crisis, the importance attached to it as an element in the world's economy is shown by the international investigation now being undertaken by the Gold Delegation of the League of Nations. Moreover the problem of gold distribution is bound up with the whole question of the balance of international payments, which includes that of international public debts and reparations, an aspect of the problem which has political as well as economic implications. Again, in regard to silver, it is maintained with a considerable show of reason that the unprecedented fall in the price of silver has constituted a substantial factor in the depression by reducing considerably the purchasing power of the populous countries of the East, whose currency is based on that metal, and at its recent meeting in Washington the International Chamber of Commerce called for an international investigation of this problem also.

To carry the argument into a wider field, modern investigators are almost unanimous in the opinion that measures of monetary adjustment are likely to play a large part in the ultimate subjugation of the business cycle. They are no less emphatic that such measures, to be fully effective, must be international in scope. The utmost prescience and technical ability in the conduct of the national economy is liable to be rendered nugatory by

price and monetary movements in the rest of the world. Whether the aim is a higher degree of stabilisation of the general level of prices, the maintenance of purchasing power upon the home market or some other form of adjustment, purely national action is unlikely to succeed so long as international trade and an international monetary system are retained.

Finally, beyond and to a large extent governing these purely economic factors, lies the ebb and flow of business confidence which in the last analysis often reposes as much on political as on economic circumstances. The world as it is now constituted is a delicate and complicated piece of economic machinery which must work smoothly and evenly if general prosperity is to be maintained. Where political unrest or the apprehension of it restricts the granting of credits and checks the circulation of capital, some degree of dislocation is inevitably introduced, which gradually makes its effects felt throughout the whole mechanism. To vary the metaphor, the flow of capital may be compared to the circulation of the blood in a living organism. If one limb is partially atrophied, the whole body suffers. From this it follows that one of the most important factors in the technique of international balance has to be sought in the political sphere. Revolutions and upheavals, or even the fear of them, are sufficient to undermine confidence and to sterilise business. Still more is this the consequence of war or rumours of war. For complete prosperity not only is the maintenance of peace necessary, but the certainty of its maintenance. Not only is the avoidance of open friction between nations indispensable, but also the guarantee of their determination to settle all disputes that may arise by pacific means. Hence the economic importance of the political disturbances which have recently affected China, India, South America and some countries in Europe, and hence the significance of the insistence of the President of the United States in his address to the International Chamber of Commerce on the need for an active policy of disarmament as a measure for reviving business.

It would be easy to dilate on these international factors, which are now being seen as constituting the most basic elements in the prosperity of nations. To do so would far exceed the limited scope of this brief sketch. As it has proceeded it has pointed inevitably to the conclusion that unemployment is not a disease mainly curable by industry itself, nor even a disease which can be certainly prevented by any amount of national
organisation or forethought. Its most malignant form is in
the last analysis traceable to deep-seated causes of an inter-
national character. The foregoing enumeration of them, however
summary and inadequate, may serve to suggest how the
consideration of the problem of unemployment in the United
States leads on to the wider problems of the world's
economic health upon which, under modern conditions, employ-
ment in every industrial country is now so largely dependent.
One of the principal lessons of the present crisis appears to be
that, whatever its political, racial and geographical divisions,
the world's material prosperity or adversity is now in a large measure
the common lot of its whole population. As yet we are very
far from having mastered the forces by which prosperity and
adversity are determined, and it is only by the growth of inter-
national thinking, followed by international action, that in the
ast resort the well-being of humanity can be secured.
APPENDIX I

Report of the Unemployment Committee as Amended and Adopted by the Governing Body of the International Labour Office at its Fifty-first Session, Geneva, January 1931

I

The Committee, which is greatly concerned at the increasing gravity of the unemployment problem and its consequences, both from the humanitarian and social point of view and from the point of view of the world economic situation, considers it indispensable to study the causes thoroughly and to try to find remedies capable of practical application.

Considered as a whole, this exceptionally grave unemployment appears to be the cumulative effect of economic and financial disturbances likely to affect more especially certain countries and certain industries. Among these disturbances there are some which recur with a certain regularity, while others have been introduced into the economic system of the world after the war-time and post-war upheavals.

Without wishing to make either a complete or a systematic enumeration, the Committee, desirous of showing the complexity of the problem, draws attention to the following factors which, rightly or wrongly, are often considered as causes of unemployment:

(a) Excessive production of certain agricultural products said to result partly from exceptionally good harvests and partly from an increase in the amount of cultivated land due to faulty estimates of the demand, which is sometimes diminished by under-consumption, leading to inability to sell, to a decrease in the purchasing power of the rural population and consequently to a contraction of outlets for industrial products;

(b) The maladjustment between the production of certain industrial products, such as raw materials and industrial equipment, and the markets' power of absorption;

(c) The alleged inelasticity in the links whereby effective purchasing power, as expressed in currency and credit, is held by some to be connected with the world's available gold supply and to have been a factor in the unprecedented fall in world prices;

(d) Lack of confidence which is often said to be the cause of an inadequate distribution of gold, of an imperfect circulation of capital and a restriction in the granting of credits, and which by preventing the financing of countries which are in need of capital and the development of the purchasing power of consumers is said to have made it impossible to restrict the fall of world prices;

(e) The fall in the price of silver which is said to have brought about a considerable decrease in the purchasing power of countries whose currency is based on that metal, a purchasing power already reduced by the political conditions in some of those countries;
(f) Too high a cost of production in certain countries as a result of physical, geographical or other conditions;

(g) The disturbances in international commerce caused not only by the development of new industrial areas but also by artificial barriers put in the way of international trade and by the difficulties said to be associated with the problem of political debts;

(h) The difficulties in the way of adjusting movements of population to the possibilities of exploiting the resources of the world;

(i) The disorganisation of the labour market caused by the extra-rapid development of labour-saving machinery and of the process of rationalisation.

II

These various causes of unemployment, which are in some cases generally admitted and sometimes the subject of controversy, should be thoroughly studied with a view to bringing out their real importance as well as the importance of methods suitable for mitigating them. These investigations will be carried out by the International Labour Office in co-operation with the League of Nations, experts and other organisations being consulted, if necessary, so as to show in a systematic form the known elements and factors of unemployment. The Committee urges, however, that the International Labour Organisation should immediately strive more than ever, with the help of the employers' and workers' organisations represented in it, to induce Governments to take all immediately practicable steps to preserve the world of labour from the consequences of unemployment.

The Committee therefore desires that the attention of Governments should be called with insistence to the following points:

(a) The need for the organisation of the labour market by public employment exchange services, which should collaborate as effectively as possible in the drawing up of systematic schemes for the re-employment of the unemployed and the readaptation, if necessary, of discharged workers to the technical requirements of production;

(b) The need of developing existing systems of relief and insurance against total unemployment and short-time and the creation of insurance systems where they are not yet in existence, with the means necessary to ensure that they are immediately financed by advances from the State, every effort being made to adapt them to the essential needs of the workers without interfering with the re-employment of the workers in industries capable of activity either at home or abroad.

(c) Undertaking extensive public works of national utility in accordance with programmes previously drawn up and at the same time expanding orders for supplies, so as to counteract the effects of the temporary falling off of activity in private enterprise; the possibility of Governments coming to an agreement through the appropriate organs of the League of Nations with a view to joint execution of extensive public works of an international character;

(d) International co-operation which will make possible the free movement and placing of men in unexploited regions capable of utilising their activity, and with a view to increasing markets;

(e) The development of suitable methods for ensuring co-operation among the different national economic systems.
With regard to the measures to be taken on the subject of the length of the working day or week and the remuneration of labour, in relation to unemployment, the Committee takes note of the fact that the representatives of the employers and workers hold different opinions at the present time.

The representatives of the workers, while maintaining their demands in connection with the forty-hour week, ask for:

(a) A reasonable shortening of the working day or week, taking into account the increase in output obtained by improved methods of production;

(b) Seeking suitable means of raising the remuneration of labour in countries where it is most inadequate at the present time, with a view to eliminating one factor of unfair competition and to increasing the consumptive capacity of certain markets, without neglecting the development of social insurance, which preserves a certain power of consumption to workers prevented from earning their living by causes beyond their control.

The employers consider, on the contrary, not only that the measures suggested by the workers would be of no avail but that they would produce most serious disturbances. They are convinced, on the other hand, that one of the essential measures to be adopted in the effort to restore economic equilibrium should be a reduction of the cost of production and the expenses of distribution so as to enlarge markets by increasing the purchasing power of the whole body of consumers.

As a result of this difference of opinion the Committee invites the Office to pursue its investigations in order to lead at a later date, if possible, to a narrowing of the gap between the two points of view and to positive action.
APPENDIX II

Resolutions Adopted by the International Chamber of Commerce
at Washington, 4-9 May 1931

I

RESTORATION OF INTERNATIONAL TRADE

The trade disturbance which all countries have been facing and
the effects of which have been felt by all peoples is but a repetition
of conditions similar to those with which the world periodically has
had to contend, now intensified by the consequences of the war.

The developments of the last two years have caused an unsettlement
of confidence which is unwarranted in view of the healing and
recuperative powers of commerce and finance which have always asserted
themselves and which are certain to again demonstrate their effective­ness.

Business recessions have invariably stimulated improvements in
methods, taught salutary lessons and resulted in sound progress based
upon a firmer foundation. We are certain that history will repeat
itself. The task imposed upon the business and financial interests of
the world is to quicken and vitalise these processes.

The Chamber feels that, as in the Rome resolutions of 1923 and in
the resolutions of its Brussels, Stockholm, and Amsterdam meetings, it
must express frankly business conviction as to the treatment of certain
major problems influencing world trade and the welfare of peoples.

I. The International Chamber has repeatedly emphasised the fact
that war is the greatest barrier to social and economic progress and
the establishment of higher living standards is dependent primarily on
the maintenance of peace. The Chamber commends the efforts being
made by the governments of the world to reduce armaments to the
lowest possible limit and urges not only that there should be no
relaxation of this effort but rather that it should be redoubled. The
attainment of this objective would relieve the people of all nations
of a heavy burden of taxation.

II. International obligations have been made definite in amount
and in terms as between nations. The integrity of such obligations is
always fundamental to the maintenance of international credit and to
the expansion of commerce and industry. The observance of this
essential principle, however, is not inconsistent with an impartial
examination of the effects of these obligations on international trade,
if warranted by changed economic conditions, such examination to be
based on the principles laid down by the International Chamber of
Commerce at its congresses.
III. National and international trade should be encouraged by the removal of every obstacle possible. Tariffs should not discriminate unfairly between nations. Embargoes should be exercised only against dumping or other unfair practices. The machinery provided by some countries for the adjustment of tariff inequalities should be utilised without delay and all nations should unite in an effort to remove all unjustifiable restrictions.

IV. Private initiative and private operation of business enterprise constitute the most effective instrument to ensure the progress of industry and to increase general prosperity.

V. The tendency for governmental expenditures to outrun revenue again imperils national budgets. A sound budget is absolutely requisite to the maintenance of national credit and the stability of exchanges. Such a budget should contemplate every possible economy and must not impose such a burden of taxation as will disturb productive enterprise and add to unemployment.

THE SOLUTION OF THE UNEMPLOYMENT PROBLEM

Considering that the present economic crisis has affected all nations and consequently also endangered profoundly the recovery of the economic welfare of the world, and contributed to unemployment, the International Chamber of Commerce points out that, as both industry and agriculture have experienced an enormous technical development within a very short period, it has not been possible, partly on account of the war and its effects, to harmonise production and consumption of commodities.

The International Chamber of Commerce considers it advisable for the purpose of meeting this crisis that the Bank of International Settlements and similar institutions should lend their aid, so far as is practicable, to increase the mobility of accumulated capital. Furthermore, there should be an enlargement of the various ways and means which are available for this purpose with a view to facilitating the movement of capital under international co-ordination.

The Congress has received with interest the evidence of constructive efforts made by owners and managers of business undertakings to promote stability in employment. By planning in its various forms many employers have demonstrated that in their fields fluctuations of employment can be substantially reduced. The industrial undertakings of all countries should study these accomplishments and should endeavour to find similar methods applicable to their circumstances, in order that they may to the greatest possible extent increase the certainties of employment.

The International Chamber of Commerce considers that measures of unemployment relief which are merely palliative do not go to the root of the evil. All measures of unemployment relief must be consistent with sound economic principles so as to avoid excessive drain on national income and to refrain from restricting the mobility of labour and industry. Otherwise they only increase existing difficulties.
The International Chamber of Commerce,
Realising the serious consequences of the present silver situation to the economic condition of the world,
Considers the convocation during the current year of a Conference at which all interested bodies may be heard, for the purpose of seeking a solution to the problem, to be eminently desirable,
And urges the National Committees to bring the matter to the attention of their respective Governments.