

THE THEORY
OF
UNEMPLOYMENT

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A. C. PIGOU



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PREFACE

THIS book is addressed to students of economics. Its aim is to clarify thought, not to advocate a policy. While it is natural and right in the present deplorable state of the world's affairs that many economists should seek to play a part in guiding conduct, that is not their primary business. They are physiologists, not clinical practitioners; engineers, not engine-drivers. The main part of such contribution as they may hope to make must be indirect; in the study, not in the pages of newspapers or even in the council chamber. I offer no apology, therefore, for publishing, in a period when the tragedy of unemployment is of unexampled magnitude, a book on that subject strictly academic in tone and content.

It is possible to study the problem of unemployment either from the money end or from what I shall call, in contrast, the real end. The two studies, if made complete and carried through correctly, must necessarily come to the same thing, their analyses meeting in the middle. There can, therefore, be no question of the one way of approach being right and the other wrong. Both are right, and both can be used with profit. In recent years, as is to be expected in a period of monetary disorganisation, economists have been inclined to concentrate attention on the money end. The result, in my opinion, has been to overstress somewhat the rôle that money plays in more normal times, and to put in the background very important factors of a non-monetary character. For this reason, among others, I have chosen to write my book from the real end, and to bring in the monetary factor only at a fairly late stage.

Addressing myself to economists, I have made use without disguise of whatever tools have appeared to me, in different

parts of the analysis, to be helpful. In some chapters of Parts II. and III. this method has involved the employment of a little elementary differential calculus. I am aware that there are writers on economic subjects, unacquainted with this tool, who resent its use by others. To them it is sufficient to reply with Pareto that persons ignorant of the German language are ill-qualified to criticise German literature. There are, however, other writers, themselves masters of all the relevant technique, who, nevertheless, deprecate the introduction of mathematical symbols into economic discussions. Marshall, for example, a great part of whose work was built up round a mathematical skeleton, was at extreme pains to keep the skeleton concealed. By so doing he made his *Principles of Economics*, not only a great work of science, but also a great instrument of general education. None the less, I venture a doubt how far those many readers of Marshall, who leave the skeleton unwrapped—who perhaps are even unaware of its existence—really grasp his thought. Would they not in the end have been better off had mathematical ideas been presented to them in mathematical form; and had they been advised to acquire a mastery of these few and simple tools? However that may be, I have in this book deliberately discarded cotton-wool and said what I had to say in a direct manner.

Though this volume is of substantial size, it does not claim to be exhaustive. What I have studied is a simplified model of the economic world rather than that world itself in its full completeness. Neither our analytic apparatus nor our statistical information is at present adequate for that. In particular many complications of detail associated with the imperfection of markets are left aside; and the concept of wage-goods is employed in a manner which cannot, in the nature of things, yield more than a rough approximate picture of the facts. The work is thus tentative in character and, as no one knows better than the author, in many respects unsatisfactory. Moreover, on a number of relevant matters, including some of the broader influences that govern movements of demand, I have said little. The reason is that they have already been discussed at length in my *Industrial*

Fluctuations. In some degree this book and that are complementary to one another.

Part I. is general and introductory. Part II. is concerned with the form of the real demand functions for labour in particular occupations and in the aggregate: Part III. with alterations in these demand functions brought about otherwise than through the monetary factor: Part IV. with alterations in whose genesis or development that factor is concerned. All these Parts are, in a sense, preliminary. Finally, in Part V. the results obtained are brought together and utilised in a direct discussion of the causation of unemployment and its fluctuations. Mr. Denis Robertson, of Trinity College, Cambridge, has very kindly read all these Parts in manuscript and has helped me with many valuable suggestions; and Mr. Sraffa has done me a like service for Parts I. and II. In each Part, when reference is made to a chapter in another Part, both Part and chapter are named; when reference is made to a chapter in the same Part, the number of the chapter only is given.

A. C. P.

KING'S COLLEGE, CAMBRIDGE,
April 1933.

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PART I
GENERAL CONSIDERATIONS

CHAPTER I

DEFINITION OF UNEMPLOYMENT

§ 1. THE volume of *employment* in any occupation over any assigned period can be defined unambiguously as the number of man-hours of work performed during that period. It is recognised that the quality of the men at work may vary from time to time and also the energy with which they perform their work. But this does not spoil the statistical measure any more than the fact that the quality and age distribution of the persons constituting a community varies prevents us from stating unambiguously the number of the population.

§ 2. *Unemployment*, however, is not an equally clear-cut conception. If it meant simply the number of man-hours that exist over a period, during which people are *not* employed, it would be so. But nobody seriously proposes to define unemployment in such a way as to make a man unemployed during the whole of the time (*e.g.* while he is asleep at night) that he is *not* employed. A man is only unemployed when he is *both* not employed and *also* desires to be employed. Moreover, the notion of desiring to be employed must be interpreted in relation to established facts as regards (1) hours of work per day, (2) rates of wage and (3) a man's state of health.

Thus, first, if the normal hours of work in a particular factory are eight, and a specially strong man would have liked to be at work for nine, nobody would say that he is, therefore, "unemployed" for one hour a day. In fact, for the purpose of measuring unemployment, the normal hours of work per day must be taken as given. This must be done even when the normal hours are different at different seasons of the year, as they are in the building trade. Awkward questions may,

indeed, arise if this line of thought is pursued to its logical conclusion. Thus, obviously, it is in substance much the same thing if a cotton mill closes three days a week as if it cuts down its daily hours from eight to four. If the idleness due to the former act is to be called unemployment, it is arbitrary to refuse that name to the idleness due to the latter. But, if we do not refuse it, we are not interpreting the notion of desiring to be employed in relation to established facts as regards hours of work.

Secondly, desire to be employed must be taken to mean desire to be employed at current rates of wages in an establishment not engaged in an industrial dispute. A man is not unemployed because he would like to work if the current wage were £1000 a day but does not so like when the current wage is 5s. a day. There are here, of course, certain ambiguities about the meaning of current rates of wage. If the wage in a man's own town is 5s. a day, whereas in another town it is 6s., a man is not unemployed if he stays in his own town and refuses to work because the wage there is not 6s. The same thing is true if a man of poor quality, such that the current rate for one of his ability is 3s., refuses to work for that, because the current rate for stronger men is 5s.

Thirdly, desire to be employed means desire subject to the facts of a man's own health. A man is not unemployed because he desires to work but is prevented from doing so by sickness. In the terminology current in England that type of non-employment is carefully separated from unemployment.

§ 3. We thus conclude that the number of persons unemployed at any time is equal to the number of persons who desire employment in the above sense—the number of would-be wage-earners—*minus* the number of persons employed. The task of obtaining a correct record of the difference between these two numbers is rendered difficult by the fact that some persons, who are not in fact desirous of employment in our sense, are, nevertheless, enumerated as though they were. It is well known that casual labourers often do not desire, and do not offer themselves for, work on more than three or four days in a week. Moreover, it is alleged that some men on occasions, possibly even for considerable periods, prefer to

draw unemployment pay rather than make difficult efforts to find a job, particularly if this would require a shift in dwelling-place and, still more, a shift in occupation. Such men do not in fact desire employment in any effective sense; and yet in current statistics they are always classed as unemployed. With a well-organised system of Employment Exchanges, reasonable rules about conditions of benefit and rates of benefit not too high relatively to normal wages, we need not, indeed, fear that from this cause any appreciable number of available vacancies will be left unfilled. But in a period of depression, when all available vacancies are filled, the fact that these men do not desire employment does not cause them to act otherwise than they would do if they did desire it; and, since it is impossible to look directly into people's minds, there are, therefore, no means of discovering or enumerating them. When records are based on the number of persons eligible for benefit under Unemployment Insurance schemes, and when the test of eligibility is such as to include persons who *were* desirous of employment at some date in the past but are not necessarily so desirous now, there is further scope for the type of error we are here considering. Before the amendment of the Insurance Act in 1931 there were a number of persons recorded as unemployed who did not in fact desire employment. Thus in the *Labour Gazette* of November 1930 we read: "If the average rate of exit (from the Insurance scheme) experienced during the three years 1925-8 had continued during the subsequent two years, while the number of new entrants remained the same, there would have passed out of the Insurance scheme approximately 185,000 males and 130,000 females, who are now included in the figures for July 1930".¹ It appears further that the number in insurance in the northern section of the country took a spurt upwards in 1929-30. The *Labour Gazette* writes: "This change in the trend is attributable in the main to the retention within the scheme of unemployment insurance, in areas where unemployment has been heavy, of numbers of persons who would have passed out of the scheme if the changes in the conditions for the receipt of benefit introduced by the Unemployment

¹ *Loc. cit.* p. 397.

Insurance Act, 1930, had not been made".¹ Under the technique of the English scheme, as it then stood, women who had married and in effect withdrawn from industry, were, nevertheless, legally entitled to claim benefit for a considerable period, and a fair number of them did so. These women were clearly not would-be wage-earners and not unemployed in the terms of my definition. For the purposes of a general view, however, the proportion of "unemployment" that is affected by difficulties of this character is too small to make unemployment as here defined seriously different from unemployment as recorded in British official statistics.

§ 4. With this definition it is plain that one very important type of cause, namely alterations in the rate of wages offered by employers, coming about while other things remain the same, may affect employment and unemployment in different degrees. They will affect them in equal degrees if, and only if, they leave the number of men desiring to be employed, and so the number liable to be "unemployed" in our sense, unaltered. It may happen, however, if the rate of wage is raised, that a few men, who, at the lower rate, would have been in retirement, living on pensions or on their savings or with friends, and a few who would have been engaged in non-wage work, will become seekers after wage work. *Per contra*, it may happen that a rise in the rate of wage, if the effort demand of workers for stuff is inelastic, may cause a few men to seek employment on fewer days in the week. But the generality of occupations in the real world are so organised that men cannot do this except on pain of dismissal, so that this point is not practically important. Of more weight is the tendency of a rise in the rate of wage, by enabling the husband to support his family, without his wife working, to cause a certain number of women to withdraw from the labour market. This tendency and the tendency for men to be drawn back from retirement, and so on, work in opposite directions. In any event neither tendency is likely to manifest itself on a large scale. It is not probable, therefore, that on this account the amount—or the proportion—of unemployment caused by a

¹ *Loc. cit.* p. 399.

rise in the rate of wages will be appreciably different from the amount, or proportion, of employment that is destroyed.

§ 5. It should be noted further that in certain conditions a given reduction in the number of persons employed is associated with an equal transfer of persons from inside the class of would-be wage-earners to outside that class, and so leaves the number of unemployed, in my sense, unaltered. This will happen if women, who have been employed, leave their jobs on marriage, and the vacancies that their withdrawal creates are not filled because acceptable candidates are not available. In times of general depression, however, it is very improbable that vacancies thus created will remain unfilled for any appreciable length of time. In England in the post-war slump domestic service has probably been the only large-scale occupation in which unfilled vacancies have played any significant part. In such circumstances withdrawal from employment by particular persons merely means the entrance into employment of others. The volume of employment is not affected. The voluntary idleness of A is a substitute for, not an addition to, the involuntary idleness of B. Thus this type of reaction is not likely to prove practically important in bad times. In good times it conceivably might do so. But even then its scope is probably not great.

§ 6. In sum, then, we may conclude that the number of would-be wage-earners and the number of persons employed are in the main independent of one another, so that, if the first decreases or the second increases in a given measure, the number of persons unemployed, in the sense of my definition, will decrease in an approximately equal measure. There are thus available two main types of "remedy for unemployment": those that seek to diminish the number of would-be wage-earners by inducing old men to retire on pensions, by raising the school age, or by stimulating emigration, and those that seek to increase the number of persons employed. In popular discussions of unemployment the vital distinction between these two types of remedy is not always perceived—or at all events expounded—with perfect clarity. In this book in the main I shall take the number of would-be wage-earners in a given situation as a fixed datum, so that the

quantity of unemployment and the quantity of employment are simple complements of one another. It is obvious, of course, that, if the number of the would-be wage-earning population expands and employment remains unchanged, the absolute and the proportionate quantity of unemployment must both increase. If employment grows with population, the absolute quantity of unemployment will increase, but the proportionate quantity will remain constant.

CHAPTER II

THE RELATION OF UNEMPLOYMENT TO UNFILLED VACANCIES

§ 1. The quantity of unemployment is, as we have seen, equal to the number of would-be wage-earners *minus* the quantity of employment. At first blush it is natural to add that the quantity of employment is equal to the quantity of labour demanded; so that the quantity of unemployment is equal to the number of would-be wage-earners *minus* the quantity of labour demanded. A moment's reflection, however, shows that the second step in this chain of analysis is faulty.

§ 2. The quantity of employment ruling at any time is equal, not to the quantity of labour demanded *simpliciter*, but to this quantity *minus* the quantity of unfilled vacancies—that is to say, of posts that in each occupation, at the wage-rate ruling there, employers desire, but are unable, to fill. Thus, if we write for the aggregate quantity of employment E , for the aggregate quantity of labour demanded D and for the aggregate quantity of unfilled vacancies V , in all circumstances $E = (D - V)$. When $V = 0$, the number of men employed in the aggregate is equal to the number of men demanded in the aggregate: and also, it will be observed, the number of men employed in each centre separately is equal to the number of men demanded there. When, however, $V > 0$, these constraints are removed. It follows that, in these circumstances, though differences in wage-rates or demand conditions still imply differences in the aggregate quantity of labour demanded, they do not imply differences in the aggregate quantity of employment. An expansion in general demand or a fall in wage-rates all round must lead to an expansion of D , that is of $(E + V)$: but it need not lead to any