The Age of Marshall

Aspects of British Economic Thought 1890-1915

NARMADESHWAR JHA

Professor of Economics and Head of the Department of Economics in the University of Bhagalpur, India

With the original foreword by
Sir Dennis H. Robertson

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Contents

Preface to the Second Edition

In the nine years that have passed since *The Age of Marshall* was first published I have come to see that some of the questions with which it deals are not in all respects as simple as it makes them appear, and require more extensive treatment. But I still believe that the point of view it expresses is substantially correct. It would, however, be very difficult for me to alter the tone or content of the book without extensively rewriting it and as it has achieved something of a status now of being an unusual book on the history of British economic thought, it appears best to reprint it almost as it is. As the Red Queen said in *Through the Looking Glass,* " it's too late to correct it, when you have once said a thing, that fixes it, and you must take the consequences ". At the same time there are a few points that seem to call for some further explanation and I shall accordingly devote the rest of this new preface to commenting briefly upon some of them.

I now feel that I should have said something about Marshall and provided some justification for the name given to the book. What kind of man was he? P. T. Homan rightly describes him (*Contemporary Economic Thought* pp. 197–8) as:—" A brilliant mathematician, a young philosopher carrying a somewhat undigested load of German metaphysics, Utilitarianism and Darwinism; a humanitarian with religious feelings but no creed, eager to lighten the burdens of mankind, but sobered by the barriers revealed to him by the Ricardian Political Economy— one sees the background of the man who was to be to his students' sage and pastor as well as scientist; whose objective scientific approach was to give economics a renewed public standing; whose sympathy for public reform was to rout its enemies; whose high gifts were to be as zealously devoted to his intellectual mistress as any artist's to his muse". (For Marshall's views on economic reform, see the *Principles*, 9th Edition, pp. 712 and 713.) Marshall's contributions to economics are well known. They set the tone for writing in economics in the period with which this book deals, though some of his books appeared much later. His *Industry and Trade* was published in 1919, and *Money, Credit and Commerce* in 1923. The famous evidences he gave to the Gold and Silver Commission (1887), Indian Currency Committee (1899) and the Royal Commission on Local Taxation, containing some of his best writings, did not become generally available until they reappeared as the *Official Papers of Alfred Marshall*, and the *Memorials of Alfred Marshall* in the middle of 1920s. Marshall's ideas had, however, already passed into British economic tradition by word of mouth at Cambridge and, as his students came to occupy professional positions at other universities in England or abroad, elsewhere also. What was still more important, as Dr. C. W. Guillebaud writes in the Variorum Edition of the *Principles of Economics* (1961, Vol. 2, p. 6), nearly at the end of his teaching career, Marshall succeeded in persuading the University of Cambridge to establish a separate Tripos, or Honours School, in Economics and Politics, thus liberating economics from its subordination to philosophy and academic psychology with which it had previously been joined in the Moral Sciences Tripos. It would be out of place here to write about the development of Marshall's own economic ideas, so ably done in Keynes's famous *Memoir* (see *Memorials of Alfred Marshall*, edited by A. C. Pigou), and in Dr. C. W. Guillebaud's editorial introduction to his Variorum Edition of the *Principles*. But one thing in the development of Marshall's economic ideas deserves mention. His own approach to his subject was formed before 1890 and took the form, above all, of " the widening of his equipment on the applied side of economics ", and he increasingly came to stress the need as years went on, for realistic treatment of an economic problem and for recognising the limits of economic principles (see the *Principles*, p. 459, and Variorum Edition, Vol. II, p. 721). The age of economic writing which followed the publication of the *Principles* and which was mirrored in the *Economic Journal* from 1891 to 1915, is characterised by the application of this Marshallian approach to economic problems, and even the limited theoretical development of the period took Marshall's writings as the point of departure. But this Marshallian emphasis on a realistic approach and on problem-solving work perhaps slowed down or delayed progress in the field of economic theory proper. According to Dr. C. W. Guillebaud, Marshall became increasingly absorbed with the more realistic side of economics and its ethical aspects and increasingly disinterested in extending his ideas on the abstract and analytical side. Some of this disinterestedness of the later Marshall in matters of theoretical economics continued to dominate the years which followed. This explains why so little of pure theory appeared in the *Economic Journal* despite Edgeworth, "the high-brow theorist" in the editorial chair. This also explains why I have chosen to call this age of economic writing the Age of Marshall, an age which above all made use of Marshall's "engine" of economic enquiry.

It would not occur to any one trying to understand the structure of post-Marshallian neo-classical writing by a method other than the one initially used in this book — a quantitative analysis applied to a run of back volumes of an important and representative economic journal — or from other relevant studies of economic thought, that the economists of this period were so conspicuously interested in applied economics apart from their well known interest in theoretical economics. Nor would it have been clear to me, without this close examination of the contents of the *Economic Journal*, that interest in statistical studies of British and other economies has continued unabated since the days of Tooke, Newmarch and Jevons.

NARMADESHWAR JHA

Bhagalpur University,
November 1972.

Foreword

Dr. Jha has, in my view, deserved well of students of Economics, not only in India but elsewhere, by the patient thoroughness with which he has worked through twenty-five solid volumes of the *Economic Journal,* and the discerning and temperate judgment with which he has sought to present an ordered account of what he has found there.

Of course the range of his scholarship extends far beyond the bounds of the *Journal.* To paint his picture of what he aptly calls " The Age of Marshall ", he has to draw also on the books of his period, which, starting on the morrow of Marshall's *Principles* (1890), covers such landmarks as Beveridge's *Unemployment* (1909), Pigou's *Wealth and Welfare* (1912) and some of the major works of the Webbs; while it is also among his purposes to show in what manner what was thought and written in 1891–1915 differed from what had been thought and written earlier, and how far it foreshadowed what was to be thought and written in later years.

Nevertheless, it is with the *Journal* articles, reviews and notes of this period that his main concern lies. What are they about? Why, with such a pre-eminent " high-brow " theorist as Edgeworth in the editorial chair, do refinements of pure theory play such a relatively small part in their contents (p. 17)? Why does monetary policy bulk so small (p. 13) and tariff policy so large (p. 53)? Within each of the two continuously prominent sectors of Industrial Relations (p. 84) and Public Finance (p. 185), did there occur during the period some subtle change of emphasis or approach? I will not stand between the reader and Dr. Jha's own answers to, or hints bearing on, these questions, though I have stuck in some page references above as tentative flags.

Let me instead quote at some length one of his thoughtful generalisations (p. 13). " Perhaps all writing in economics — a very large part of it at any rate — in the last analysis is topical. Contemporary economic problems suggest the subject, and the available framework of economic science provides the way in which the problem is approached and analysed. Very often during the process of this scientific examination, the theoretical frames of the science, and its tools of analysis, receive an enlargement, refinement or an overhaul."

At the end of his book, Dr. Jha reminds us of our duty to feel grateful to the scholars of an earlier age — not only the stars of the first magnitude, but the lesser lights as well. If it be not too fanciful, I like to think of the shades of the *Journal* contributors of 1891–1915 meeting under Edgeworth's wing to receive our vote of thanks — and to pass one in return to Dr. Jha, for calling them up, as Odysseus did the shades of the heroes of the Trojan War, to hold brief converse with him for our enlightenment.

D. H. ROBERTSON

Trinity College, Cambridge,
February 1963.

Preface to the First Edition

The period 1890–1915 in the history of British Economic Thought may aptly be described as the Age of Marshall. His influence as teacher, and his ideas as presented in the *Principles of Economics* (1890) and other writings, stimulated and often dominated the ideas and writings of most of the younger economists of the period. His ideas also provided a theoretical basis for increasing state intervention in economic life of the community in Britain and thus helped the Liberal Government of Great Britain lay the foundations of a Welfare State.

In this work I have tried to evaluate the contributions made by the younger contemporaries of Marshall to four major aspects of Economic Thought, namely, International Trade, the Labour Question, the Economics of Poverty and Welfare, and Public Finance. Further, this study is primarily concerned with the contributions made by these economists through the *Economic Journal,* the journal of the Royal Economic Society.

This work is a slightly modified version of the thesis* I prepared for the Ph.D. degree of the University of Leeds.

I should like to acknowledge with gratitude the help I have received from my supervisors, Professor A. J. Brown and Mr. L. G. Johnson. They have helped me with their kindness, guidance and encouragement at every stage of this work. Sir Dennis Robertson gave me the privilege of discussing with him certain aspects of neo-classical economics and many of the chapters of this book at various stages of its evolution. He has very kindly contributed a foreword also. I am grateful to him.

I am indebted to Professor J. R. Hicks, Mrs. U. Hicks, of Oxford, and Dr. A. E. C. Hare and Dr. B. R. Wilson of the University of Leeds and Dr. F. H. Awad of Cairo University for the help they gave me.

**The thesis is entitled " The Economic Journal and Aspects of British Economic Thought, 1890–1915."*

I have a lively awareness of the courtesy and kindness I received from the staff of the Brotherton Library of the University of Leeds.

My thanks are also due to Mr. T. N. Jha of Novelty & Co., for undertaking the difficult publication of this book, and to my friends, Mr. Gopi Krishna Prasad and Mr. A. N. Singh Thakur for seeing it through the press.

NARMADESHWAR JHA

Bhagalpur University.
27th February 1963.

Chapter I

INTRODUCTION

Introduction

The object of this study is to examine the contribution of British neo-classical economists particularly through the *Economic Journal*, the journal of the Royal Economic Society, during the first twenty-five years of its existence, to four broad fields of thought, namely: international trade, the labour question, the economics of poverty and welfare, and public finance. It was in these fields that the main developments in economics took place after 1890. There seem to be two main reasons for this preoccupation with the problems relating to trade, labour, poverty and public finance: First, that these were aspects on which the *Principles of Economics*, as an introductory volume, had not much to say; but for which it had, along with other contributions of Marshall, prepared and equipped his younger contemporaries. Second, that these were the problems raised by the changing nature of the labour movement and of the international market, as well as by the growing awareness of the existence of poverty and suffering in the nation with which the public authorities, economists, politicians and social reformers were faced, from 1890 to 1915.

The year 1890 was a landmark in the development of economic thought for a number of reasons. In addition to the fact that Marshall's *Principles of Economics* was published in that year — a fact of immense importance for the future growth of economics, the British Economic Association was founded in 1890. At the inaugural meeting of this Association, which has become the Royal Economic Society since 1903, it was decided to publish as the organ of this Association a periodical to be called the *Economic Journal*, now in its eighty-second year. The publication of Palgrave's famous Dictionary took place at about the same time, and what is more, a certain understanding was reached amongst economists in Britain and abroad which separates the '90s from the earlier period of sterile controversy over methodology and the scope of economics. Indeed it may be said that neo-classical economics began or emerged as a force in 1890.

Even though Jevons had struck new paths in economic enquiry, he could not clearly see the theoretical implications of certain changes that were coming over the British economy and the international economy during the '70s and '80s. During these years the so-called "Great Depression" in Britain occurred; and there also began an age of national tariffs abroad and one of growing foreign competition in world markets. The democratic framework within which British economy was to operate in the years to come was being laid and labour was emerging as an organised opposition to capital. In the academic world, biology and history were increasingly influencing the thinking of the social scientist. Of these changes there are some traces in Jevons's thought, particularly in his *State in Relation to Labour* published in 1882, the year of his death; and some of his views relating to government's economic policy expressed in this book are extremely significant. But somehow it appears that Jevons's work in economics — apart from his brilliant statistical work — remained fragmentary and incomplete, and it was left for Marshall and his younger contemporaries whom we have referred to as neo-classicals in this study, to take account of all these changes in their theoretical and non-theoretical contributions to economics.

In a sense we are examining the impact of Marshall's *Principles* on his younger contemporaries, such as Edgeworth, Pigou, Bickerdike, Cannan, Sanger, Price, Bowley, Cunynghame and many others. They all took part in the development of economic thought after 1890, especially through the *Economic Journal.* The reason was that the comprehensive treatise was no longer the main vehicle of progress in economics, and the subject tended to break up and undergo its development in specialised branches. It seems that these younger contemporaries of Marshall were preparing the background for Keynes and for the so-called Keynesian Revolution.

Chapter II

THE ECONOMIC JOURNAL, 1891-1915

The Economic Journal, 1891-1915

There are 16,838 pages in the first twenty-five volumes of the *Economic Journal*. About 40 per cent of this total (6,994) is devoted to what the index to the *Journal* published by the Royal Economic Society calls "Original Articles". There are "Notes and Memoranda" (short original articles) on 3,608 pages. The reviews of 1,804 books take about 3,840 pages. The rest contains notes on current topics, notices of recent periodicals, lists of books received for reviewing, and obituary notes on the economists who died during the period.

The space given to these various features shows some variations over time. The total number of pages constituting a volume varies, and shows a falling trend. The number of pages given to reviews continues to rise, particularly after 1900. On the other hand the portion allocated to "Notes and Memoranda" continues to fall. The squeezing out of this section in the course of years, particularly since Keynes came to be associated with the editing of the *Economic Journal,* has been a major change in the internal arrangement of the *Journal*.

For the purposes of further analysis of the contents of the *Economic Journal,* one can classify the "Original Articles" and "Notes and Memoranda" together in eight subject groups as follows: —

1. Labour Problems, consisting of original articles and notes relating to the various aspects of the problem of poverty, such as old age pensions, schemes of social insurance, unemployment and labour exchanges. This group also includes writings relating to socialism.
2. Economic History and Descriptive Economics.
3. History of Economic Thought and Economic Theory.
4. Money — including writings on banking, prices and the rate of interest.
5. International Trade.
6. Industrial Relations. This group consists of articles and notes relating to the wage contract, such as collective bargaining, strikes, industrial peace and

statistical studies of wages.

7. Public Finance.
8. Miscellaneous writings on subjects not included in any of the other seven groups. This group includes a few articles on population problems, and the land question. It also includes a very small number of articles on railway economics.

The reviews have also been classified correspondingly. The only difference here, occurs in the eighth group: in the case of reviews this miscellaneous group also includes a very large number of books written in other European languages, which were reviewed for the *Economic Journal.*

We have then found out the total number of entries under each group separately in a year, and expressed it as a percentage of the total number of "Original Articles", "Notes and Memoranda" or of the total number of reviews, as the case may be, published in the *Economic Journal* in the corresponding year. These percentages are shown in the sixteen graphs presented subject-wise in Figures I-VIII.

There is no reason to suppose that the writings in the *Economic Journal* during the period 1891 to 1915, have been a fairly representative indication of the changing interests of British economists and to some extent of all economists. The graphs in Figures I-VIII, therefore, provide almost a sample survey of the changing preoccupation of economists in general, and of British economists in particular, in the late 19th and during the early years of this century.

One can make the following observations on the contents of the twenty-five volumes of the *Economic Journal*, on the basis of this analysis:

(a) The most important interest of British economists from 1890-1915 was the problem relating to or raised by organised and unorganised labour. This is shown by their preoccupation with the various aspects of the industrial relations question on the one hand (see Figure VI), and by their deep concern with all aspects of the problem of poverty and welfare (see Figure I) on the other.

The graphs in Figures I and VI also show that the relative interest in these two broad aspects of the labour question, poverty and industrial peace, fluctuates during the period. The more permanent problems of poverty receive greater attention during years of comparative

Figure I

LABOUR PROBLEMS
(a) Original Articles and Notes.
(b) Reviews.

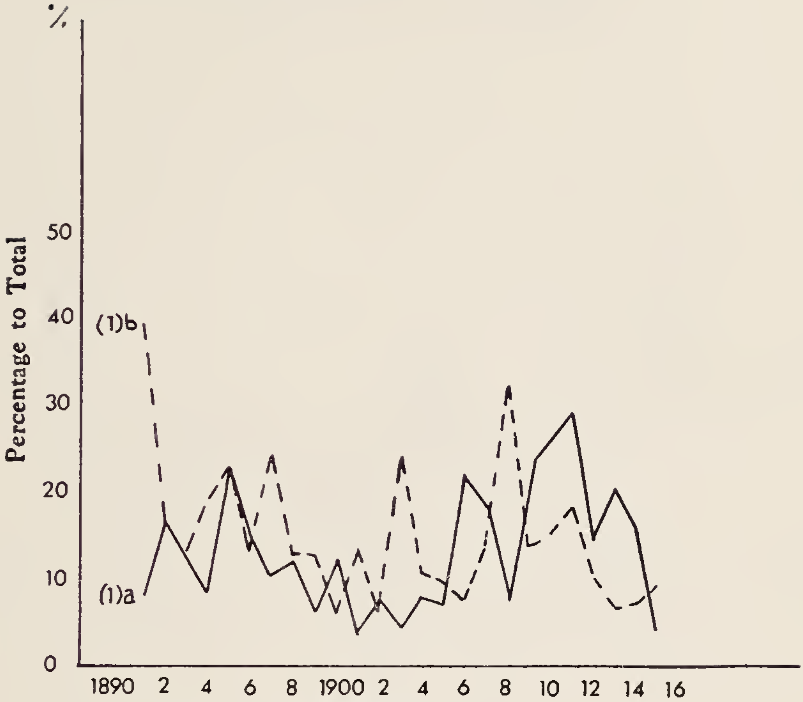


Figure II

ECONOMIC HISTORY
AND DESCRIPTIVE ECONOMICS
(a) Original Articles and Notes.
(b) Reviews.

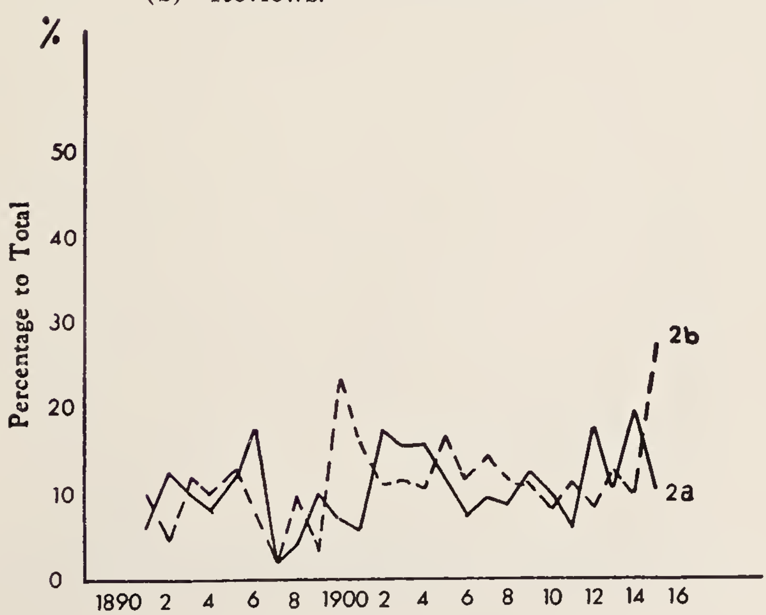


Figure III

HISTORY OF ECONOMIC THOUGHT
AND ECONOMIC THEORY
(a) Original Articles and Notes.
(b) Reviews.

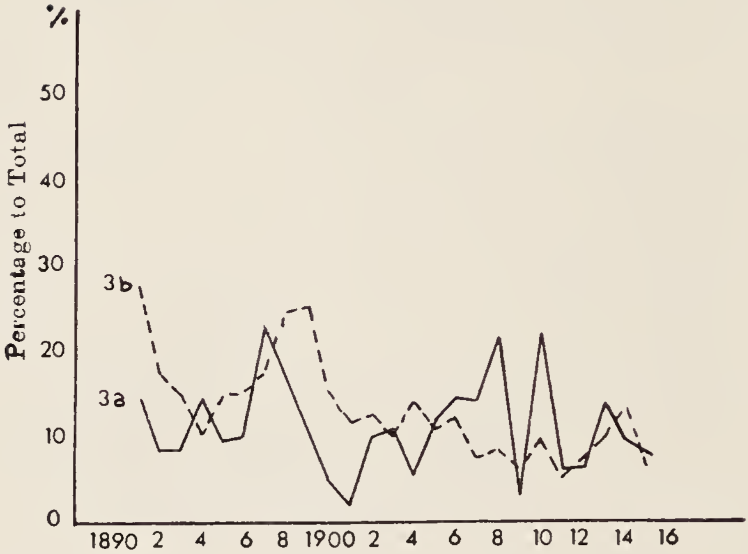


Figure IV

MONEY
(a) Original Articles and Notes.
(b) Reviews.

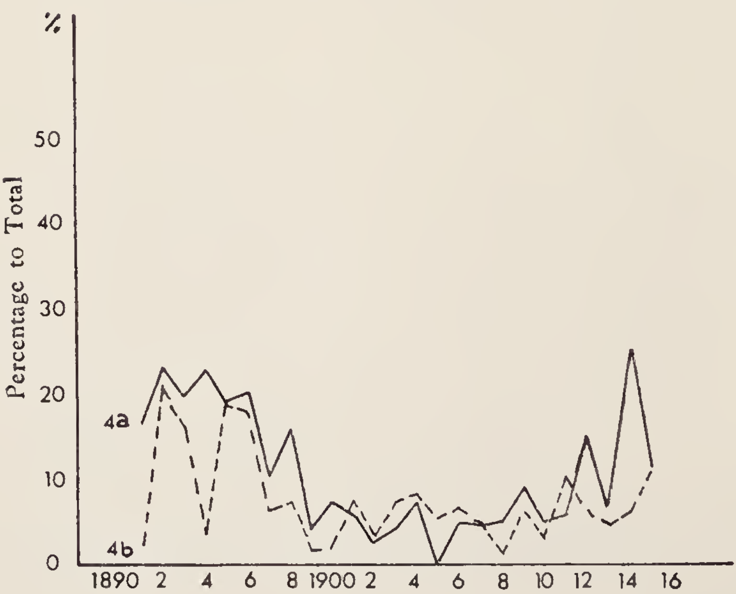


Figure V

INTERNATIONAL TRADE
(a) Original Articles and Notes.
(b) Reviews.

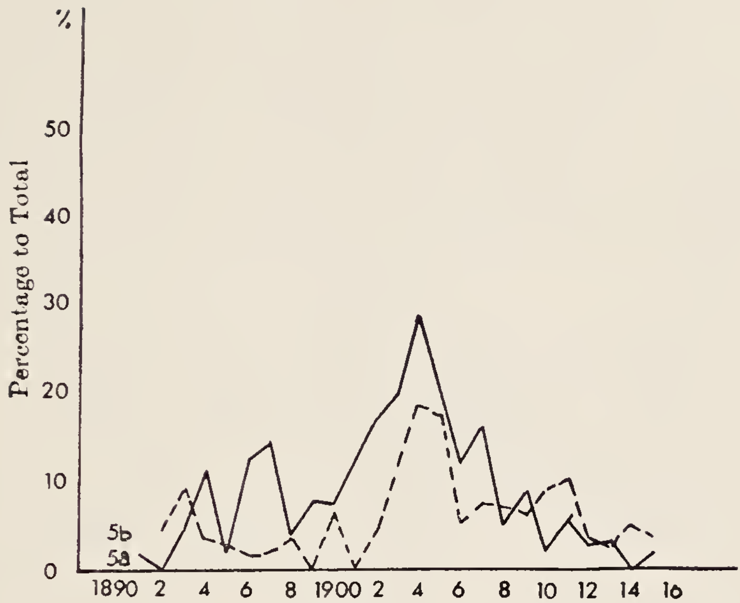


Figure VI

INDUSTRIAL RELATIONS
(a) Original Articles and Notes.
(b) Reviews.

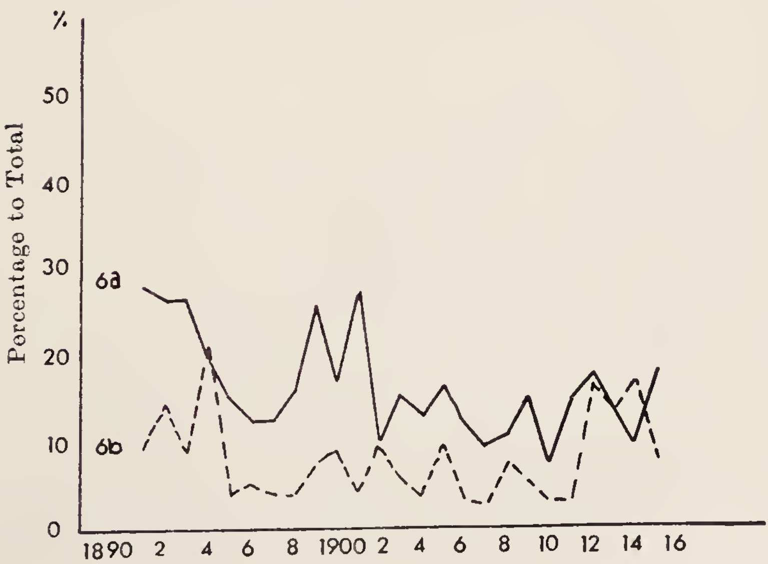


Figure VII

PUBLIC FINANCE
(a) Original Articles and Notes.
(b) Reviews.

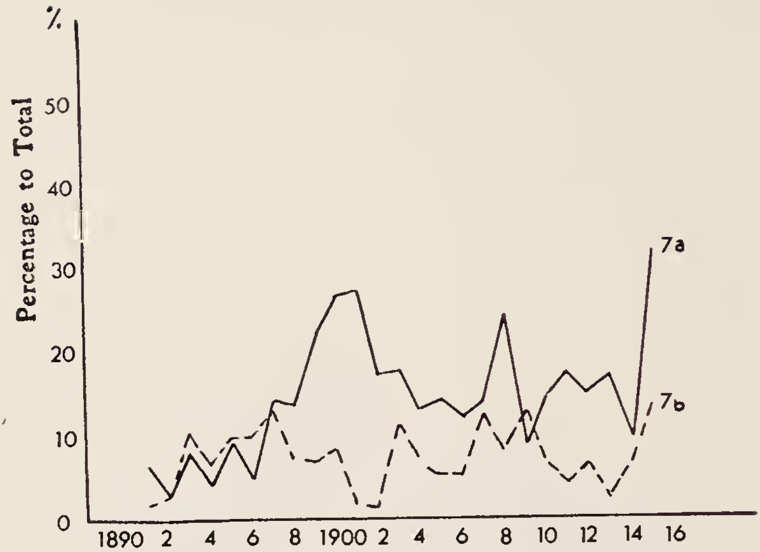
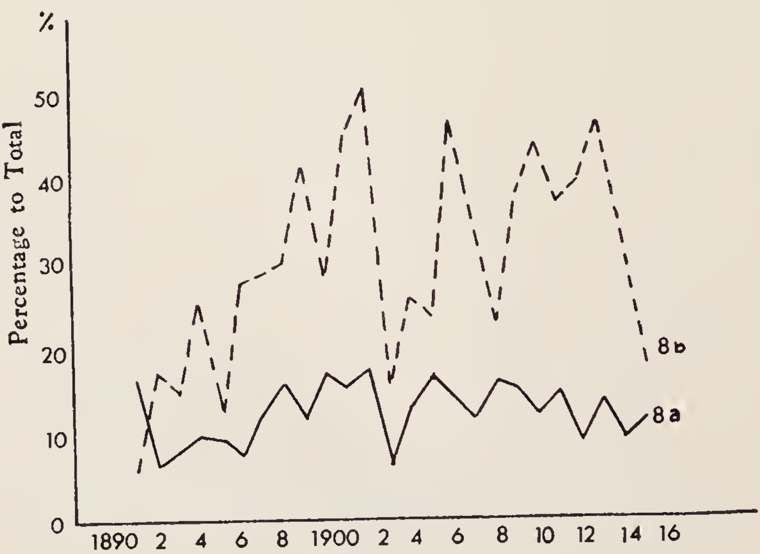


Figure VIII

MISCELLANEOUS
(a) Original Articles and Notes.
(b) Reviews.



(b) The interest in the theory of international trade begins to show itself in the '90s. Edgeworth's famous articles on international values appeared in 1894. This interest grows conspicuously, after 1900, particularly during the years of tariff controversy. The interest dies out equally conspicuously after 1910 (see Figure V).

(c) In the field of public finance economists took a sustained interest. This interest reached very large proportions, for instance, in the late '90s, when the reform of local taxation was being discussed, leading on to an enquiry into the theoretical foundations of taxation. Towards the end of the period the *Economic Journal* is full of articles on war finance (see Figure VII).

(d) The interest in monetary questions was quite pronounced in the early '90s. The interest diminished after 1896, when prices started rising again. It continued to wane until 1912, when a period of unusual rise in prices set in (see Figure IV). In keeping with the general impression, by and large, economists were less agitated about monetary questions after the bi-metallist debate was over.

(e) Economists took an increasing interest in economic history, descriptive economics and statistical investigations, particularly after 1897. The interest received a fresh stimulus during the years of tariff reform controversy.

(f) In the field of economic thought and economic theory, interest was not absent, but it was not conspicuous apart from the interest taken in the economists of an earlier period. Analysis of contemporary trends in economic theorising was undertaken from time to time (see Figure III).

(g) It seems that a very large part of the original writings in the *Economic Journal* was essentially topical. To a large extent this was also true of the books that were reviewed in the *Journal*. Perhaps all writing in economics, as in political philosophy — a very large part of it at any rate — in the last analysis is topical. It appears that contemporary economic problems suggest the subject, and the available framework of economic science provides the way in which the problem is approached and analysed. Very often during the process of this scientific examination, the theoretical frames of the science, and its tools of analysis, receive an enlargement, refinement or an overhaul.

The *Economic Journal* has not only been an engine of enquiry but also an engine of reform. The "Original Articles" in the *Journal* are, more often than not, in the nature of essays in applied economics. They are the non-theoretical half of what Marshallian or the neo-classical economists had to offer to their generation.

Of these eight subject groups in which the original writings of the *Economic Journal,* have been classified, only four have been considered in detail, namely: 1, 5, 6 and 7. Broad lines of development in the others are indicated in the next chapter, to provide a background to the chapters that follow.

Chapter III

THE THEORY OF VALUE AFTER MARSHALL

The General Theoretical Background

The Theory of Value after Marshall

The reviews of Marshall's *Principles of Economics* suggest that the welcome given to the *Principles* was spontaneous and almost general.[1] The younger English economists knew full well what Marshall had achieved. "From Adam Smith downwards," one of them wrote, "the conception of value has been broadened and deepened, until in Professor Marshall's treatise the results of the previous development are gathered up into fresh constructive unity." This writer, L. L. Price, went on to point out that in restoring unity to the theory of value, Professor Marshall had also imparted unity to the whole of economic science, and the work which still remained to be executed in his second volume, was to be largely an extension of the fundamental ideas established in the first to some difficult and complicated portions of the subject. Marshall's treatise, Price thought, ended a period of criticisms and controversy and commenced a period of constructive work. It had embraced the scattered and sometimes apparently conflicting results of the work of Continental, American and English writers, and of earlier and more immediately recent times, in an orderly whole, where each particular doctrine was assigned a place as it served to illustrate the fundamental theory which, with a diversity of application, underlies the various classes of economic phenomena.[2] Marshall had certainly done that, and this gave rise to a feeling amongst economists in Britain that very little remained to be done in the field of the general theory of value. Mild debates, however, went on until 1900 on the ultimate standard of value.[3] The main participants in the discussion were, of course, the economists of the Austrian school and those who agreed with Marshall. Except for William Smart and Wicksteed, the majority of economists in Britain agreed with Marshall and accepted his reconstruction of the theory of value.[4] They were satisfied with Marshall's presentation of the theory of value in terms of short and long periods and based on the partial analysis technique. They were not attracted by the rich and logically complete but unusable system of Walras. As Schumpeter has emphasised, Marshall was not unmindful of the general interdependence of all economic quantities. His whole life was given as he himself remarked, "to presenting in realistic form as much as I can of my note xxi." His object was to present general equilibrium realistically, and for that reason he chose to deal with the various types of commodity and factor markets in his analysis of value separatedly and "partially". Perhaps he considered it unrealistic to ignore the particularities of specific commodities and markets. Emphasis on these special characteristics of individual markets shows that Marshall did not consider competition as it worked in real markets to be faultless and perfect; it had to work, he seems to have thought, ceaselessly against frictions and imperfections.

The development which took place in the theory of value in Britain was in the direction of a further growth of this understanding of the real nature of specific markets. This understanding was expressed in the examination of the influence of institutional and psychological factors (that make for imperfection) on prices in the various commodity and factor markets. For instance, there was an increased understanding of the labour market. There was also an increased appreciation shown by economists as years went on of the particular market conditions that go to determine profits and international values. The younger contemporaries of Marshall (Pigou and Cannan) also showed the manner in which the supply and demand mechanism worked in the determination of the value of money. One would not be too far wrong to suggest that there is a recognisable trend in the development of ideas on value from Marshall's corn and labour markets to Keynes's treatment of the labour market, and of the stock exchange and the money market. That trend is one of growing awareness of the specific institutional factors and of the atmosphere of opinions, expectations, hopes and fears — largely irrational and non-economic factors — in which these different markets operate.[5]

In the field of the theory of demand Marshall's achievements were based, as is well known, on the hypothesis that the marginal utility of money did not change, and that utilities and satisfactions could be measured and compared. When the *Principles of Economics* appeared, Nicholson objected to Marshall's concept of consumer's surplus. Controversy over this aspect of Marshall's work died out after some dispute between Nicholson and Edgeworth. To a very large extent this hypothesis remained the foundation of the neo-classical theory of taxation and of the Pigovian welfare economics. On the eve of the first world war, however, attempts were made by W. E. Johnson to introduce the concept of ordinal utility in his presentation of the theory of consumer behaviour,[6] but these changes in no way undermined the neo-classical public finance or welfare economics. Johnson's attempt was, however, important for two reasons: —

In the first place he considered two new kinds of demand curve; one for the case in which the total expenditure on the two commodities varies while their prices remain constant; the other for the case in which the total expenditure is fixed while the price of one of the commodities varies.

The first of these new demand curves enabled those problems to be attacked diagrammatically, in which the marginal utility of money need not be assumed constant. Secondly, he followed Edgeworth (whom he mentions) in making use of the latter's indifference curves in his diagrams. In his diagrams Johnson arranged his 'utility curves' in a scale of increasing value as one passed to the right and above. The distance, he pointed out, measured arbitrarily from one curve to another indicated (without measuring) the increase in utility. Johnson was of the view that the impossibility of measurement did not affect any economic problem. He wrote: "Neither does economics need to know the marginal [rate of] utility of a commodity. What is needed is a representation of the ratio of one marginal utility to another. In fact this ratio is precisely represented by the slope at any point of the utility curve." We have not been able to examine other elements in this deservedly famous article, but it certainly went beyond the earlier attempts of Edgeworth and Pareto in the same direction, and preceded a somewhat similar attempt made by Slutsky in 1915. It also came very near to some of the developments introduced into demand theory by Hicks and Allen in 1934.[7]

There were some economists in Britain who did not quite agree with Marshall's treatment of distribution. Nicholson, for instance, continued to treat distribution as J. S. Mill had done, and disapproved of Marshall's treatment of distribution as an extension of the theory of value. The difference, however, does not seem to be significant. Marshall, like the neo-classical economists generally, had rejected the marginal productivity theory of wages as an adequate explanation of wages. The neo-classical economists accepted the equality of wages to marginal productivity, achieved under stable equilibrium conditions, as the norm to be pursued. They never thought, so it seems, that the market forces left to themselves actually led to this equality or to any other socially desirable conditions. It appears that there is a good deal in Keynes's remark in *The General Theory* "that the classical theory represents the way in which we should like our Economy to behave."[8] To a large extent this was true of Marshall's theory also, and the immediate general result of Marshallian economics was something like that of Von Wieser's *Social Economics*. Mitchell says that "though Wieser started out by saying that economics aims to be an empirical science, almost of necessity he finds himself developing economics less as an account of how men actually behave in valuing things than of how they ought to behave in order to attain maximum satisfaction."[9] Mitchell held, however, that Marshall viewed economic theory as an explanatory science, dealing with the actual process of economic life, unlike Wieser, who treated economics not as a positive but as a normative science. But in Marshall's hands economics appears to have been as much concerned with expounding the rational principles of economic life, in order that those rational principles may serve as guides to state policy (which Mitchell thought was only true of Wieser), as with finding out how things go or why they go as they do in the economy. The former aspect of Marshall's treatment becomes very clear if we see some of his chapters (particularly those that relate to the doctrine of maximum satisfaction) in the light of the welfare economics of Pigou and Bickerdike. One must not, however, lose sight of the dual character of Marshall: He was a realist, an economist analysing economic phenomena as he found them, and he was also a reformer, deeply interested in social reform.

By and large, the attention of English economists was given mainly to questions of welfare which Marshall had opened, and to those aspects of economic theory which had a bearing on reform or which had been left out by Marshall for consideration in subsequent volumes. Even though some attempts were made by the younger contemporaries of Marshall to measure economic phenomena, surprisingly little was done in the direction of what is now called econometric work. In the *Economic Journal* for instance, the theoretical writings relate mainly to the theory of tariffs, taxation, monetary reform and to the pricing policies of railways along with the allied problem of their regulation and nationalisation. There were developments also in those aspects of the *Principles* which had opened up further lines of theoretical and statistical advance. Some of the work done by Pigou, Edgeworth, Cunynghame, Sanger, Bickerdike and Lehfeldt as we show later was of this nature. To some extent Marshall seems to have discouraged progress on econometric lines and the achievements of British economists in this respect before the '30s, perhaps for that reason do not add up to anything significant. However, the concepts of Marshall's *Principles* and his diagrams were increasingly used after 1890 by the younger generation of economists to extend the theoretical framework as well as to analyse the growing body of available fact for the solution of pressing contemporary problems. The course of development in the theories of international trade, welfare economics and public finance reflects the growing influence of Marshallian economics. But they also show the influence of the trade union movement and of competition in foreign markets.

There was a growing demand during the period 1890 to 1915, for the enlargement of the scope of economics. The demand came mainly from the historically or factually minded economists. The need came from the urgency on the part of the State to regulate certain aspects of the economy, but it also arose from a desire on the part of some economists to provide a more practical and useful type of education (eventually given through the B. Com. Courses in Birmingham and other universities), for prospective managers and owners of firms, in order to enable them to run their businesses on the most profitable lines. According to Ashley, such a course demanded a new science of what he called "Business Economics."[10] This was to be different, Ashley argued, from Political Economy, which approached the economic problem from the political and social point of view. Considerations of commercial strategy which would form the main theme of "Business Economics", Ashley suggested, carried with them no conclusions as to the effect of such a policy on society; that problem belonged, he thought, to the older and already established branch of economics which was more properly called "political", and was concerned with the conditions and interests of society or the nation as a whole. According to Ashley, even though Marshall had changed the name of the subject from Political Economy to Economics, it was still Political Economy and he felt that economics of this political and social sort was not enough. "What seems wanted," argued Ashley, "if we want to give future businessmen a suitable training in our universities, is a sustained and systematic treatment of economic questions as they present themselves, and which will take business success as the immediate criterion for the matter in hand." Ashley did not forget to add that economists should also "point out the divergence between considerations of business expediency and the nature of its effects on society at large. It seems that Pigou's *Wealth and Welfare* was addressed, among other things, to an examination of this divergence, and in this respect he was following closely the normative elements in Marshall's thought.[11] On the other hand the subject of how businesses fix prices or should fix prices if profits were to be maximised, or alternatively how are actual prices related to costs was the problem to which the incipient theory of the firm addressed itself.

Rudiments of the theory of the firm are to be found in Marshall's *Principles*. As a matter of fact Marshall's knowledge of the actual behaviour of businesses and of the environment in which they worked was astonishingly vast. He was very much concerned with the special market of a firm (and of particular firms) and its actual pricing policies. This interest was quite apart from his interest in the supply schedule of the market, that is, of the industry, for which he had designed the concept of the representative firm. Some of these ideas were further developed in Marshall's *Industry and Trade* where he was primarily concerned with "a thorough realistic study" of different parts "of the economic field." The pricing policies of railways, which were studied during the period by Pigou, Taussig, Acworth, Cohn and Edgeworth, provide another instance of the interest of the neo-classical economists in the actual pricing of goods and services in the economy, apart from the deductive treatment of the theory of value. For the same reason statistical investigations into actual cost conditions in the railways and other industries were felt to be desirable.[12] The next stage in the evolution of the theory of the firm can be seen in the theoretical writings of Henry Cunynghame and Edgeworth. Cunynghame's views on the successive cost curves were first expressed in his articles in the *Economic Journal;* they were later elaborated in his *Geometrical Political Economy.* But it was Edgeworth, who in the course of his examination of the "Pure Theory of Taxation", gave what is in effect an apt description of the "U" shaped curves touching an envelope curve. Edgeworth was considering the problems raised by the presence of increasing returns in a regime of competition. How can the law of diminishing cost *co-exist* with competition? It was a question which had perplexed Marshall; Edgeworth therefore also asked: "How can the supply curves of the kind which Professor Marshall has made familiar be ever conceived as *descending?*"[13] Edgeworth answered the question in these words: "The better opinion appears to be that such a downward trending locus is not to be regarded as a supply curve in the primary and obvious sense, not as representing the offer which in a given state of industry would be forthcoming at different prices; but as compounded of or derived from a series of such primary curves, which Mr. Cunynghame in his path-breaking essay on the subject has called 'successive cost curves' . . .

"Suppose that, as a party of mountaineers press up a steep slope, the opposite crest gives way, and they are carried down by a sort of avalanche, and landed on a new inclined plane. Again they urge their toilsome march upwards; and again, before the crest is reached, they are precipitated on to another ledge below; and so on till they are brought to a stop on some steep and comparatively firm slope. Their path in space, though in reality saw-shaped, might appear to one taking a general view to be a curve line. Such, perhaps, is the nature of a competitive industry obeying the law of increasing returns: confined on an ascending supply curve, extended during long periods down a descending supply curve."[14]

The ways in which prices were actually fixed in different industries, monopolistic or competitive, came to be analysed in order to find out the effects of a tax or a bounty. Here was an instance in which tax analysis was leading on to a more realistic theory of pricing; and the interest of Oxford economists in the subject of actual price fixing has continued to this day. It has taken an increasingly inductive line. Some of their work amounts to a statistical verification of the theory of value, and as the *Oxford Papers on Price Mechanism* shows, it tries to explain the pricing process in the commodity as well as the factor markets.

The theory of the firm may well be viewed as a realistic attempt on the part of economists to go behind Marshall's supply curve and to go beyond his theory of value, as some of the attempts at the statistical estimation of the elasticity of demand for wheat or tea for instance, was an attempt to go behind Marshall's demand curve.[15] The latter attempt was facilitated by the increasing statistical material on workmen's budgets. Marshall had envisaged these developments on econometrical lines, as Jevons had done before him, but only three or four economists attempted this work in England and in the United States before 1915. These economists were: Henry Moore, Pigou and Lehfeldt. "I wish to suggest that the statistical material [workmen's budgets] thus made available," wrote Pigou in 1910, "affords opportunity to present arithmeticians to investigate by a new method the magnitude of the elasticity of demand." The other English economist to do so was R. A. Lehfeldt, who made, as he said, the first attempt at measuring the elasticity of demand for wheat. Lehfeldt gave the reason for his attempt in these words: "When after hearing about curves of demand, the student comes with the question, 'How are these curves obtained?', one has to confess that they are not obtained, but rest in the limbo of abstractions. It would seem, therefore, that the roughest attempt to measure a co-efficient of elasticity would be better than none and would serve to make the concept of more real use."[16] Lehfeldt found the elasticity of demand for wheat to be 0.6.

One should see all these attempts as part of the general trend that began with Marshall to make economics more realistic and quantitative (though he discouraged such developments in some ways). They were eventually to supplement the theory of value with an investigation into the actual process of pricing, and to provide a more precise measurement of the forces of supply and demand. One might even say that the old theory of value was becoming a theory of price formation. Of course, the process of supplementing the deductive theory of value by an empirical one has been slow — the real movement started in the '30s. But a beginning was made even before the first world war, and there were economists who were interested in the theory of price in Britain, even though they would not have agreed with Cassel.[17]

Another characteristic of the writings of the neo-classical economists may be mentioned. National dividend emerges in these writings as a concept of great importance. Neo-classical economists were very much concerned with the end result of all economic changes on the economy as a whole, and this was according to them reflected on the size of the national dividend. National dividend was a concept of unusual significance in Marshall's thought and was basic to the economics of welfare which grew out of Marshallian economics. There is also a growing recognition in these writings of the significance of the indirect and remote effects of economic changes that initially relate to a particular sector of the economy.

In the field of monetary theory the years from 1890-1915 were not very fruitful; the interest of the British economists in problems relating to money was virtually in abeyance from 1897 to almost the first world war. Matters relating to changes in the general price level and to those of their measurement continued to find some attention. There is a growing understanding of the gold standard over the years 1891 to 1915. In the field of population studies also, apart from Cannan, very few British economists took an interest. It was a period of apprehensions resulting from the falling birth rates, and the fear of over-population and the belief in Malthusian theory of population were disappearing. Population studies were becoming more and more the concern of the demographer and the sociologist. An unusually keen interest was shown by economists, in Britain and in Europe, in the writings of the economists of earlier decades and centuries; and there is some evidence of an increased give and take of ideas amongst economists belonging to different countries. What is more, in all countries, economists emerged as a profession. One of the results of this increasing specialisation was that new opportunities arose for organised research, discussion and publication. New outlets for scientific work were provided in the shape of new Journals, one instance of which was the *Economic Journal.*

NOTES

1 Schumpeter says (*History of Economic Analysis*, p. 833) that Marshall's *Principles of Economics* "was received with a universal clapping of hands."

2 L. L. Price: " Notes on a Recent Economic Treatise," *Economic Journal,* 1892. *The Principles of Economics* was also reviewed in the *Economic Journal,* by Edgeworth and Professor Pigou. Comments were also made on certain aspects of the book by Cunningham and Ashley. There does not seem to be much difference between Price's and Schumpeter's appraisal of Marshall's achievement.

3 See for instance Wieser " The Austrian School and the Theory of Value", *Economic Journal,* 1891; Edgeworth, Professor Böhm-Bawerk on " The Ultimate Standard of Value ", *Economic Journal,* Vol. iv; and " One Word More on the Ultimate Standard of Value," *Economic Journal,* Vol. iv.

4 See William Smart's article, " The New Theory of Interest "—*Economic Journal,* Vol. i.

Some of the books he wrote were *The Distribution of Income,* 1900; *An Introduction to the Theory of Value* on the lines of Menger, Wieser and Böhm-Bawerk, 1892; *Studies in Economics,* 1896. He edited Wieser's *Natural Value,* 1893, and translated into English, Böhm-Bawerk's *Positive Theory of Capital,* 1892.

Wicksteed summed up his theoretical views in his address to the British Association, republished in the *Economic Journal,* 1914. His Essay on the *Co-ordination of the Laws of Distribution*, 1894, London School Reprint, 1932, was severely criticised by Edgeworth, but has since become famous for its early treatment of the "adding up problem".

See Stigler *Production and Distribution Theories,* and Hicks, *The Theory of Wages.* It seems that Wicksteed was a little naive in thinking that wages do, in fact, equal marginal productivity. That such a conclusion was based upon certain tacit assumptions (full employment and perfect competition) often not obtaining in real life, was a thing which Wicksteed, unlike Marshall and Edgeworth, failed to see.

5 See for instance the following in the *Economic Journal*—Ellis, " Influence of Opinion on Markets ", Vol. ii; Foley, " Fashion ", Vol. iii; Newman " Wholesale and Retail Prices ", Vol. vii; Chapman, " The Remuneration of Employers ", Vol. xvi; Edgeworth, " The Theory of International Values ", Vol. iv; Pigou, " Equilibrium under Bi-lateral Monopoly ", Vol. xviii; Edgeworth, " Contributions to the Theory of Railway Rates ", Vols. xxi, xxii, xxiii; Bowley, " The Relation Between Wholesale and Retail Prices of Food " Vol xxiii; " Wages and Mobility ", Vol. xxii; Bickerdike, " Monopoly and Differential Prices ", Vol. xxi.

6 See Nicholson, "The Measurement of Utility by Money ", *Economic Journal,* Vol. iv.

Edgeworth, " The Measurement of Utility by Money ", Vol. iv; Johnson's " The Pure Theory of Utility Curves ", Vol. xxiii.

7 See Hicks and Allen, " A Reconstruction of the Theory of Value " *Economica,* 1934; articles by Allen in *The Review of Economic Studies* 1936, and in *Econometrica,* 1950, and Chapter I of Hicks's

Revision of Demand Theory. Attempts in this direction were also made by Bowley in his *Groundwork of Economics,* 1924, and by Slutsky in 1915. Hicks and Allen both acknowledge that they made use of some of the ideas in Johnson's article.

8 See *The General Theory,* p. 34.

9 W. C. Mitchell, *Types of Economic Theory,* edited by Joseph Dorfman (1969), Vol. ii, p. 353.

10 See Ashley, " The Present Position of Economics ", *Economic Journal,* 1907, and " The Enlargement of Economics ", *Economic Journal,* 1908, and " Proposals for an Economic Survey of the United Kingdom " by H. W. Macrosty, *Economic Journal,* 1909.

11 Marshall refers to his "warm regard" for Ashley's work in this respect, in spite of "opposition between the main drifts of their work". See the preface to his *Industry and Trade.*

12 See Schumpeter, op. cit. p. 840 : for a brief treatment of railway economics see below (Chapter VII); for the interest taken in the investigation of actual cost, see *Economic Journal,* 1909. For Marshall's theory of the firm, see Andrews, *Manufacturing Business,* and Wilson and Andrews, *Oxford Studies in Price Mechanism;* also see H. H. Liebhafsky, *A Curious Case of Neglect,* Marshall's *Industry and Trade, Canadian Journal of Economics and Political Science,* August 1955. Theories of the firm on deductive lines were also developed in the early '30s by J. Robinson, Harrod and others.

13 See Edgeworth, *Papers,* Vol. ii, p. 88.

14 See Edgeworth, *Papers,* op. cit., p. 88-89, (these articles were published in the *Economic Journal,* in 1897). It is not unreasonable to think that Edgeworth was influenced by Messrs. Auspitz and Lieben's *Theorie des Preises,* 1889 in his approach to the theory of the firm. For an account of the realistic approach of these authors to the pricing process, see Hutchinson, *A Review of Economic Doctrine,* p. 188-191; Mangoldt might have been another source of influence—Hutchinson, op. cit., p. 184.

15 See Marshall's " Economics, Old and New " *The Quarterly Journal of Economics*, 1897; Jevon's *Theory of Political Economy,* Moore's " Law of wages ", 1911, " Efficiency Theory of Wages " *Economic Journal,* Vol. xvii, *Economic Cycles, Their Law and Cause,* 1914, *Generating Economic Cycles,* 1923, and Pigou, "A Method of Determining the Numerical Value of Elasticities of Demand ", *Economic Journal,* 1910.

16 See Lehfeldt " The Elasticity of Demand for Wheat ", *Economic Journal,* December 1914.

17 Cassel wanted to discard the theory of value altogether.

Chapter IV

INTERNATIONAL TRADE

International Trade

It would be out of place to give any detailed account of the impact of the mid-19th century protectionist writers on the subsequent restatements of the classical theory of international trade. But the influence of Hamilton, List and John Rae on the restatement of the theory by J. S. Mill is obvious. Mill seems to have believed that the theory of international trade was mainly applicable to the trade between countries enjoying more or less equal political status and in a more or less similar state of economic development. For countries which were "new", naturally gifted but undeveloped, he, as is well-known, accepted the desirability of protection. This was the famous infant industry argument for protection. Sidgwick followed Mill in this respect. In addition, he referred to certain specific conditions in which it was undesirable to open a country to free trade. Broadly speaking, all British economists writing after J. S. Mill subscribed to what might be called List's principle of relativity in the use of tariffs. Although Marshall did not think that American industries needed protection in the last quarter of the 19th century, and continued to consider the protection of mature industries wrong and unwise, it appears that his theoretical writings had a contrary effect. It seems that Marshall's concept of external economies and his emphasis on the desirability of promoting increasing returns industries reinforced the case for the protection of manufactures in the undeveloped countries, brought forward by Hamilton and List many years ago. In effect, Marshall extended List's case for the use of tariffs into what might be called an increasing returns argument for protection. In addition, by his diagrammatical representation of certain hypothetical conditions in international trade and by his treatment of "domestic values", Marshall opened up new possibilities for theoretical development in certain aspects of the theory of international values.

In the period which followed the publication of Marshall's *Principles,* the subject of international trade received the increasing attention of British economists. Certain results followed. The theory of international trade was restated. On the basis of this restatement a new case for the use of tariffs was made, this time for the maximisation of the national gain of countries from international trade. An attempt was made to find out the exact conditions when State interference with the free functioning of international trade was justified in the interest of the nation. The writings in the *Economic Journal* on international trade, with which we are primarily concerned, attempted this restatement, and ultimately these restatements led to a more precise statement of the case for tariffs. This development in the field of the theory of international trade may well be viewed as a correlate of (the new) international trade conditions that had been emerging since the '80s, and of the growing demand for fair trade and protection from certain quarters in Britain. In the following sections we examine the developments in the theory of international trade and the debate over tariff reform and Imperial Preference.[1]

I. THEORETICAL DEVELOPMENTS

The theoretical writings on international trade in the *Economic Journal* fall into three main groups. One group[2] consists of the articles that attempt a restatement of the theory generally, but their emphasis is confined only to those portions of the doctrine which have some bearing on practice, and a high degree of generality.[3] We shall examine why such statements had become necessary and what were the chief features of the restatements. The second group[4] consists of notes arising out of Edgeworth's restatement and reviews modifying the free trade conclusions of the classical theory of international trade. These controversial notes supplement the theoretical as well as the practical portions of Edgeworth's articles. Finally, we have the third group of writings[5] bearing on the tariff reform controversy of the early years of this century.

The main objections to the theory of international trade which were making restatements of the theory necessary towards the end of the 19th century were fundamental. According to Bastable,[6] who attempted the first restatement of the doctrine in England, some of these objections were: —

(a) international trade did not differ from home trade in any significant respects and therefore needed no separate treatment:

(b) the assumption of international factor immobility on which it was based was not correct, in view of the large flows of capital and labour across political frontiers:

(c) and the free trade conclusions were not unassailable.

The assumption of perfect mobility of factors inside the economy and the assumption of perfect competition had been the subject of criticism in England at least since Bagehot. On them, it may be pointed out, rested the theory of domestic values, to which the classical theory of international trade was to a very large extent an adjunct.

Although there was a substantial amount of agreement amongst English economists that a separate theory of international trade was justified, some of these objections found support amongst the more mathematically minded economists. Some of these mathematically minded economists, namely Macleod, Jevons and Marshall, wanted to treat the theories of domestic and international values both as extensions of the general theory of exchange.[7] In the theory of International Trade, however, the assumption of factor immobility, particularly in the case of labour, appeared to them to be generally valid in spite of factor movements.[8] But they recognised the possibility of using tariffs to promote national advantages under certain circumstances. One instance of this was the general approval of the argument for the protection of infant industries. This argument, as has been indicated, had grown into a general case for tariffs. The possibility of taxing the foreigner[9] through import and export taxes, under certain favourable circumstances, was generally accepted.

One of the chief characteristics of all restatements in economics since the '70s had been the growing use in them of geometrical diagrams and mathematical reasoning. In the field of international trade as well as in his treatment of the more general aspects of economics, Marshall had already used diagrams to introduce greater precision in exposition. In his "pure theory of international values" he had attempted a restatement of the theory of international trade under the "exceptional circumstances" of variable costs and tariffs.[10] These developments form the background to Edgeworth's reconstruction of the theory in 1894.

According to Edgeworth, apart from labour immobility between nations, there were three main reasons for a separate theory of international trade:

(a) It was unlike home trade because there was no tendency in international trade to achieve under conditions of equilibrium, an equality of profits and an equation of net advantages in different occupations.

(b) There was a possibility in the case of international trade, open to a nation, to benefit itself at the cost of the foreigner by a tax on exports or imports.

(c) International trade was of permanent interest because it provided parallels to the theory of distribution.

By this Edgeworth meant that the trade between nations was analogous to the distribution of the national dividend between the various classes.[11]

To avoid confusion and prejudice, Edgeworth attempted two restatements of the theory of international trade.[12] The one was non-mathematical on the lines of J. S. Mill and Sidgwick; the other was on the lines of Marshall, and made use of mathematical reasoning and diagrams.

Like Jevons and Marshall, Edgeworth considered the theory of international trade as an aspect of the general theory of exchange. Such trade, like every other act of exchange, was pursued because it was gainful. It would not go on, Edgeworth thought, unless it seemed less costly to each of the parties to it to obtain imports in exchange for exports than to produce them at home. By describing the theory of international trade as an instance of the balancing of the forces of demand and supply, Edgeworth separated it from the doctrine of comparative cost and developed a pure theory of international values[13]. Explanation of value in terms of demand and supply and not in terms of costs, had been, as is well known, one of the chief features of the new theory of value. Edgeworth's attempt to use the "more antecedent" principle of demand and supply in the case of international values was not in itself strictly original, but it was the best and the most fruitful of all such attempts[14]. Coming after the marginal revolution, it greatly facilitated the application of the various concepts and methods of economic statics — introduced and developed by Marshall — to all subsequent theoretical analysis of international trade.

The aspect which interested Edgeworth most, however, was the question of gains from foreign trade. How were these influenced by changes, he asked, in the supply of or demand for articles of international trade? Would these changes, he further asked, affect a particular country in the same way as they would affect all the countries together? The third question he asked and attempted to answer in his articles on International Values related to the effects of tariffs on a country's interests.

Edgeworth was quite certain in his answer to the first two questions. As Marshall and Sidgwick had done before him, he accepted List's view that free traders often confused the gains of all parties with those of one of them. To the last question he gave a conditional answer. The gains to a country from tariffs would "vary with the data which require to be carefully distinguished."[15]

About the usefulness of state interference with the "natural" course of international trade Edgeworth's answer was unorthodox. Tariffs that facilitated large or organic changes by bringing into operation the law of increasing returns had been thought to be good for a country by both

Sidgwick and Marshall. Edgeworth claimed that the presence of foreign competition was relevant to the problem of the use of tariffs, and emphasised that the Free Trader generally neglected to count the revenue collected by the taxing country as an item of gain. In addition, he claimed that under certain conceivable circumstances, advantage might result to the home country from a tax on exports or imports.[16]

In his attempt to define precisely these circumstances Edgeworth was not very successful. According to him, to gain from an export tax, no absolute monopoly of the exporting article was necessary. It was enough if a country furnished a considerable portion of the total supply. A nation's advantage from an import tax, on the other hand, was limited by the presence of alternative markets available to the foreigner. The presence of foreign competition, according to Edgworth, justified the use of tariffs for national advantage, but the extent of this competition also indicated the limits within which the tariffs were to be used.[17]

It is obvious that in spite of his failure to state precisely the conditions for the gainful use of tariffs, he sought to reemphasise the terms of trade argument; and was not satisfied with an extension of the infant industry argument for the use of tariffs. He attempted to find some other explanation for the growing use of tariffs by nations in a fairly advanced state of industrialisation in his time. It had certainly become impossible to explain tariffs in terms of the infancy of industries in the case of these countries.

The claim that Edgeworth made was that theoretically it was possible for a nation to use tariffs advantageously and to conceive of situations in which it was in fact desirable to use tariffs. He was as sceptical of the practicability of a national tariff policy as Mill, Sidgwick and Marshall had been. Protection, he thought, might procure economic advantages in certain cases, only "if there was a government wise enough to discriminate those cases and strong enough to confine itself to them."[18] This condition, in his judgment, was very unlikely to be fulfilled.

All the later theoretical writings in the *Economic Journal* bearing on international trade, attempted to discover what these cases precisely were.

There are other points of interest in these articles on international trade by Edgeworth: They contain an account of earlier views on international trade; they show how keen he was on incorporating the speculations on international trade on the continent into the British tradition; they provide an instance of his application of indifference curves to international trade analysis; and finally, there is in them his suggestion to measure the gains from foreign trade in terms of producers' and consumers' surplus. Here he was using Marshallian concepts and going beyond Mill, because in J. S. Mill's opinion, changes in the terms of international exchange were the entire indication of that gain.

The other restatement of the theory of international trade to be made in the *Economic Journal* was by Henry Cunynghame[19]. He was Marshall's pupil in the early '70s and was the first student to whom Marshall taught the Pure Theory of Foreign Trade and Domestic Value. Cunynghame, who attempted to restate the theory in 1903, during the period of tariff reform controversy in England was mainly concerned with the effects of export and import duties on prices and production.[20] His intention was to point out the different conditions under which the incidence of export and import duties would be on the producer or on the consumer, and the conditions under which the incidence of these duties would be on the exporting or the importing country. It was necessary to know these conditions if tariffs were to be used with advantage by a nation. In his exposition, Cunynghame used diagrams — Marshall's and his own, back-to-back ones. But he cautioned against too much use of mathematics in economics.[21]

There is a tendency to export, according to Cunynghame, whenever one country can produce a substance more cheaply than another, but once trade has begun, there are conditions in which taxes on export or import might or might not add to a country's advantage. He draws up almost a balance sheet of advantages and disadvantages to a nation from such taxes:

"A tax on export or import will:

(1) lower the price of the material in the exporting country and increase home consumption (advantage);

(2) diminish the total production in the exporting country (disadvantage);

(3) raise the price of the material in the importing country and diminish consumption of it (disadvantage);

(4) increase the amount produced, if any, in the import-

ing country (advantage);
(5) cause a gain to the revenue of the country which levies the tax."[22]

In view of these conditions, Cunynghame went on, before putting on an export tax (1), (2) and (5) had to be balanced and compared. In considering whether it was advantageous to put on an import tax (3), (4) and (5) had to be balanced. There were possibilities of conflict between the interests of the producers and the consumers within a nation if international trade was subjected to taxation. Very often, Cunynghame observed, these interests might be such that the interests of one of these groups, entirely out-balanced those of the other. The best stroke of business, he concludes, is to have an export tax on raw materials, which are necessaries of life and a well arranged import tax on rival manufacture which is not a necessary of life. A country which has a monopoly of some indispensable raw produce in Cunynghame's judgment, was in the most favourable position to gain by an export tax. Import taxes especially on necessaries, he thought, would rarely be financially desirable.

In addition to his analysis of these hypothetical conditions for an advantageous use of tariff policy, he drew attention to certain indirect advantages from protection. A protected country, he argued, drew to itself marginal investors and labourers. A protectionist country might well use tariffs for preventing formation of combinations, or in retaliation against other hostile tariffs.

Cunynghame made a number of interesting points in the course of his arguments. He found that a moderate export duty was better than a heavy one. He showed that "every demand curve is also a supply curve and every supply curve is also a demand curve." He suggested that consumers could be compensated out of tax receipts if they were hurt by a tariff. In his exposition of international trade theory, like J. S. Nicholson, Cunynghame preferred to use "prices" in place of Marshall's barter analysis.

There was considerable sympathy and similarity of viewpoint between Cunynghame and Edgeworth.[23] In their presentation of the case for the use of tariffs their agreement is obvious. They are both concerned with exploring the possibilities of state intervention in foreign trade to promote national gain in industrially advanced countries. They are both trying to define the conditions in which the use of tariffs is most appropriate. Naturally, Cunynghame, writing about a decade later, is more precise. He is still more so in his book,[24] where he says that the proportion in which the tax will be divided between the exporter and importer will depend on the inclination of the respective demand curves.[25] He, however, does not mention elasticities. It was left for Pigou and Bickerdike to study the effects of tariffs in terms of elasticities on the lines suggested by Edgeworth in his articles on the "Pure Theory of Taxation."[26]

The only objection to Edgeworth's conclusion that under certain conditions it was possible to tax the foreigner, came from Thomas G. Shearman[27]. He was attacking not only Edgeworth but Seligman, Atkinson and other American economists who were of the same opinion. "No one denies that foreigners can be robbed once or twice being taken unawares," but Shearman doubted if they could be robbed "systematically after having had full notice of our intention." He was right in pointing out that such a policy could never be followed for a long time and was bound to lead to some sort of retaliation. He does not use the word "retaliation" but the implication is there. He also disputed the indirect evidence which had been used by Seligman and others to support the argument that an import tax falls on the foreigner.[28]

It appears that Edgeworth accepted this essential limitation of his argument, for he did not reply to Shearman's note, and he made a similar objection later to Bickerdike's argument for incipient taxes.[29]

But Edgeworth provoked two other academic economists, namely, C. F. Bastable and Achille Loria, more dogmatic and unmathematical in their approach to economic theory, by his reviews of Bastable's book on International Trade.[30] On one point Bastable was able to convince Edgeworth that there was no essential difference between the effects of taxes on imports and exports. The distinction which Edgeworth drew was true only of taxes in kind, which were rare in practice, and his error was due, Edgeworth accepted, to his "too exclusive attention to the case of two commodities." Bastable and Loria both disputed the validity of a hypothetical case, considered by Sidgwick and reconsidered by Edgeworth with approval, when it was clearly undesirable to adopt free trade. Because of the inevitability of diminishing returns on land, there was a limit beyond which agriculture could not absorb workers thrown out of employment by imports of cheaper manufactures. In view of this possibility, Sidgwick and Edgeworth both argued that the opening up of foreign trade would lead to serious unemployment immediately, and, if workers could not migrate, permanently. This was a national disadvantage calling for protection.

Bastable and Loria both asserted that because trade is established only between those nations whose comparative costs are different, trade would cease as soon as the comparative cost advantage disappears, due to variations in the costs in consequence of the opening of the trade itself. There need not be unemployment if trade stopped.

Loria pointed out what he thought to be Edgeworth's divergence from the classical theory of international trade, and on the basis of classical theory denied the possibility of unemployment altogether.[31] He thought that the opening of trade could only cause a displacement of manufacturers and workers into other industries. It seems that this could only happen after some time, and Loria's view was a long period one. But he did not draw any distinction between his view and that of Edgeworth, which was essentially a short period one or rested on certain altogether different assumptions.

Bastable was in general agreement with Loria, that no international trade was possible once comparative costs became equal after trade began, but he agreed with Edgeworth that under "this special state of things," when "free, or indeed any movement of labour and capital from manufactures to agriculture was impossible", the "injury inflicted on manufactures by the introduction of free trade is great."[32] Edgeworth in his reply referred to the division of interests within a country, as a result of non-competing groups, which a free trader usually ignored. Between these groups mobility was often very difficult, and some of these groups were likely to be hurt, Edgeworth argued, by opening a country to free trade. In answer to the other objection that trade would cease, if comparative costs became equal as a result of trade itself, Edgeworth agreed that costs would certainly change with variations in the scale of production, consequent on the opening up of trade. But that would only mean, Edgeworth asserted, that there would come a point theoretically speaking "at which it would no longer pay to specialise any more; at this point the expansion of trade would cease — the trade would not stop but become steady."[33]

This statement of equilibrium conditions in international trade was also the first to envisage what is now called the case of "partial specialisation".[34] The objection raised by Loria and Bastable arose partly from their inability to imagine or accept the mathematical notions of equilibrium and partly from their dogmatic faith in the free trade conclusions of the classical theory, irrespective of the assumptions upon which they were based.

Even though Edgeworth was stating a theorem, namely, that if labour and capital were not fully mobile inside the country and were subject to barriers imposed by resources or circumstances, free trade might cause unemployment — he was doing something very important. Until then the case for protection as well as the case for free trade were both presented from the long period point of view. Edgeworth was drawing attention effectively, for the first time perhaps, to the immediate effects on the economy of opening a country to free trade. It was an argument which certain "old" countries, such as India, with an unfavourable population and land ratio or even "new" countries might well have used to erect or to maintain protective tariffs. Edgeworth himself put the significance of the theorem thus:

"The solution of the hypothetical problem assists us to follow the reasoning which Professor Lexis in his impartial discussion of foreign trade has applied to the actual case of modern States committed to long standing protectionist regulations. Even if the permanent loss of employment is not to be apprehended in large and complex modern States, it is still true that by the action of economic forces like that analysed in the imaginary case, large bodies of workmen might long suffer from loss of employment or reduction of wage in consequence of the removal of long standing trade restrictions."[35]

Edgeworth added, however, that because it was dangerous to abandon protection, it did not follow that it was desirable to introduce it. Rather the difficulty of giving up was one of the strongest arguments against taking to "the factitious stimulus". But theoretically his view was that in a certain number of exceptional and well-defined cases, as long as national divisions were a fact, the case for protection was unassailable. British economists had come to accept this position towards the end of the 19th century, and even a convinced free trader, J. S. Nicholson, who believed that "free trade like honesty was the best policy" accepted that position. The assumptions that labour and capital cannot be exported and can always find an equally advantageous employment in other things in case of displacement, in Nicholson's judgment, required considerable modifications before being applied to particular practical cases. These assumptions he thought were only useful as a "first approximation in economic theory". He was not in a position to disagree with Edgeworth, also because of his regard for Smith's *Wealth of Nations,* certain passages of which could have been used to support this contention.

The gains to the theory of international trade from the controversy between Edgeworth and the others were the following: First, one of the equilibrium conditions in international trade was precisely stated. Secondly, the theory of international trade was somewhat separated from the conclusions to which it was bound, namely, the practical policy of free trade. And lastly, the most subtle assumption of the theory or its characteristic feature, that it was about the trade between solid and separate "trading bodies", between which factors could not move, and within which factors and goods were always fully mobile and fully employed, irrespective of the changes in their exports and imports, the adjustment taking no time and involving no disadvantages, had been grasped in the course of the controversy, and was found to be incorrect in the short period.[36]

It may be interesting to note how far Marshall agreed with some of these developments. One such indication is given in his letters to *The Times* reprinted later in the *Economic Journal,* 1901. He agreed with Bastable and Edgeworth that a general tax on imports and exports has the same effects. The main burden of such a tax falls on the taxing country but the foreigners are also forced to contribute a small share. From a purely national point of view, to the extent of this small share, Marshall admitted, such duties have an advantage over other methods of levying revenue. But they might distort consumption. "It is very difficult to defend Free Trade", Marshall went on, "on absolute *a priori* reasoning . . . it is based on a study of details. For that shows that as the world is constituted, an attempt to make other nations contribute to a country's revenue on any considerable scale is foredoomed to failure and especially that England cannot now do it, because like every other large country, the greater part of her exports are not free from effective competition."[37]

Economically he found three classes of "frontier taxes" defensible: —

(a) non-differential import duties on comforts and luxuries,
(b) protective import duties on things for the production of which a country has great latent facilities that are just ripe for development,
(c) special export duties on commodities with which foreigners cannot easily dispense.

These remarks were occasioned by a new export duty on coal in 1901 which Marshall disapproved. There were so many technical difficulties, and possibilities of retaliation and a breach of international comity, he thought, that such taxes even though partly defensible were not worth the disturbance. "We are specially defenceless," he said, "against some export duties." It is quite possible, as Professor Myrdal suggests,[38] that classical economists thought in terms of a theoretical model of a world-wide perfect market (perhaps for right reasons), competitive to such an extent that the chances of retaliation in such a world would have appeared considerable.

The speculations on the theory of tariffs received another stimulus from the proposals for Tariff Reform and Imperial Preference. We shall examine in a later section the divergent views of British economists on these issues of commercial policy. Even though it is difficult to disentangle the arguments for a change of commercial policy from theoretical considerations, A. C. Pigou and C. F. Bickerdike attempted to examine the theoretical basis of protection without referring to the contemporary British situation. We shall now examine their contribution to the debate and the interesting controversy in which they carry forward the process of theoretical development that we have been so far considering.

Pigou's article, "Pure Theory and Fiscal Controversy", appeared in 1904. He later went into the question more thoroughly in his two books, *The Riddle of the Tariff* and *Protective and Preferential Import Duties*.[39] In his article which he wrote for the *Economic Journal*, Pigou presents the problem in the form of six theorems. They all bear on the practical issues before England, but are, in themselves, highly abstract and elusive. He examines: —

(a) the effects of a differential and a non-differential tax initiated under conditions of stable equilibrium on prices in the taxing country,

(b) the effects of taxing and then spending the tax proceeds.

He then considers the problem as one of raising a given revenue from two sources of supply, an idea he later developed in *Protective and Preferential Import Duties*. He then examines: —

(c) the case for protection in the light of trusts, dumping and the most favoured nation clause.

The result appears to be a little indeterminate, and Pigou himself remarks at the outset on the difficulty of applying some of these portions of pure theory to practice.

As Marshall had done in his letter, Pigou also distinguished between the effects of differential and non-differential taxes and presented the problem as a fiscal choice between two sources of revenue. But more important than this agreement in view-point with Marshall was the use of concepts like the elasticities of supply, production and demand, and the analysis of the effects of these taxes in terms of these elasticities.

With the exception of Edgeworth, the common practice in tax analysis so far had been to analyse the effects of taxes under different conditions of production, based on the mutually exclusive laws of increasing and decreasing returns, or to group commodities imprecisely as raw materials, manufactures, luxuries, etc., and to study the effects of taxing them separately. Cunynghame, in his book it may be recalled, discussed the slopes of supply and demand curves, but he did not mention elasticities. Except for Edgeworth, he comes nearest to Pigou and to Bickerdike who did proceed in the same way in his well-known article, "The Theory of Incipient Taxes".[40] The younger men, it appears, were making more frequent and extended use of Marshallian concepts and diagrams and were introducing precision and, as we shall see in the case of Bickerdike, a generality, in the whole case for protection.

Before he wrote his interesting article, Bickerdike had reviewed a book by Richard Schüller[41]. The following quotation from this review will show how keenly exercised Bickerdike was by this book and its search for a general economic basis for protection.

" This book is an ambitious attempt to find a theoretical basis for genuine protection, on a permanent basis, independent of military and political arguments for self-sufficiency, the infancy of industries, and all those other arguments which are applicable only at certain times and places. Dr. Schüller makes the best of his case and impresses the reader favourably. . . . There is less of that vagueness that so frequently characterizes works written in defence of protection."

Dr. Schüller, Bickerdike pointed out, had noticed the ease with which manufacturing industry in a country could be ruined by competitive imports produced just a little more efficiently, and had implied from this that they could be protected with a similar ease by very low tariffs. Like Edgeworth, Dr. Schüller had also suggested that there would be unemployment for a short period in a country if tariffs were suddenly abolished. There was no reason for supposing that workers could get work or, at any rate, get work nearly as good. There was always, as a matter of fact, " a certain amount of labour and capital unemployed so that the free trader cannot appeal to any general principle that existing productive powers must get employed." " A writer," comments Bickerdike, " in a country where wages are low and industries have been built up under the shelter of tariff can hardly help being unduly influenced by the short period view."

The important fact to note is that Bickerdike was left dissatisfied with Dr. Schüller's book as it did not give a sufficient foundation for a general theory of protection as a steady policy for generations. It would not convince, he thought, the English free traders, who did not admit that the imports of competitive goods, except for a temporary period, cause greater loss to producers than gain to consumers. It was this half-finished task that Bickerdike attempted to complete in his "Theory of Incipient Taxes".[42] In going through all his writings in the *Economic Journal,* one will find Bickerdike's sustained effort to present a more precise and convincing argument for state regulation of foreign trade and foreign exchange in the national advantage. His "Theory of Incipient Taxes" written in December 1906, and his review of Pigou's *Protective and Preferential Import Duties*[43] have received considerable attention in recent discussions on the optimum tariff.[44]

Bickerdike was probably thinking of the optimum heights of all taxes on commodities, imported, exported or exchanged in the home market, but he developed only the foreign trade aspect of the theorem. The question he was concerned to answer was, "whether a country by means of taxes can get more favourable terms of exchange with foreigners in such a way as to have a net advantage after allowing for the disadvantages involved in turning production from its natural course." And he proved that except in one peculiar and unlikely case when the supply and demand are inelastic on both sides, "a small enough tax" on exports or imports would always bring advantage. This advantage, however, Bickerdike thought would be greater, the more elastic the demand of the taxing country for the articles taxed. This implied that a tax on the whole mass of finished articles would tend to give more advantage than a tax on raw materials; and if there was an untaxed home supply the advantage would be larger. All that was needed for success was that the taxing country enjoyed some advantage, even geographical, in its particular market. "No great country is an absolutely insignificant quantity," and one may see that he differs from Marshall, "in the eyes of those who buy from it and sell to it."[45]

What is new in Bickerdike's contention is not the possibility of gain by use of tariffs under certain exceptional circumstances which was, as we have seen, a very old argument.[46] The infant industry argument, the taxation of exports or imports under conditions of monopoly, etc. were all connected with "certain conceivable circumstances" when a nation could use a tariff temporarily, with advantage. Bickerdike proved the general possibility of advantage. He made use of Marshall's and Edgeworth's diagrams, did not neglect the effects of a rise in prices in the taxing country which he viewed as an additional advantage, a point which deserves to be emphasised; and argued in terms of the elasticity of demand. He considered the interest of the taxing nation, *en bloc,* as something different from that of a mere aggregate of individual interests.

This is a point of some historical interest because in almost everything he wrote for the *Economic Journal* right up to 1929, C. F. Bickerdike returns to this theme of the divergence between the sum of individual interests resulting from a freely working competitive world and the national interests viewed in the aggregate. It is well known that if one trusts the Harmony Principle, one prefers to let things alone; if one distrusts it, one is tempted to favour an economics of control or a welfare economics. Curiously enough, it was Bickerdike who criticised Pigou for his failure to recognise this lack of harmony, and Pigou, sometime later, wrote the first great book on welfare economics, based on the recognition of divergence between individual and social interests.

Pigou in his book which Bickerdike was reviewing, thought of the national dividend as the sum of private dividends and claimed that it would be larger if exchange was free, a precondition for the best individual bargaining. Protection, Pigou argued, limited such bargains and so lowered the size of the national dividend. Having proved to his satisfaction the case against protection on this count, Pigou treated the problem as one of choice between protective and non-protective duties for raising a given amount of revenue.

"But is there no general rule," asked Bickerdike, "that each individual in making his own best bargain in international trade to some extent prejudices the position of his fellow countrymen, and that the maximum national advantage is not found in unrestricted individual freedom? If this is so, it would seem that a certain amount of revenue would be incidentally raised by a tariff designed primarily to maximise the advantage of international trade."[47] It is clear that Bickerdike emphasised the comparative importance of the indirect influence of an import duty on the terms of interchange in foreign trade generally, an effect which Pigou had underestimated. Bickerdike made use of mathematical reasoning to prove his case and went on to ascertain the optimum height of import taxes. He also approved of the tendency of a protective tax to raise prices as it caused a desirable transfer of wealth "from the rentier class to the community."

Pigou in his rejoinder[48] objected on Marshall's authority to Bickerdike's treatment of a supply curve as equivalent to "a particular expenses curve". It was a charge which Bickerdike successfully met.[49] He pointed out that Pigou's own treatment was open to a similar objection. "There was no reason," Bickerdike argued, "why the doctrine of consumers' surplus may be accepted, whilst the corresponding simple measurement of costs and producers' surplus may be rejected. The fact is, however, that in any case the two must stand or fall together." This was a very early recognition of the insecure basis of the doctrine of consumers' surplus; second, so far as I know, in sequence, in Britain, to that by J. S. Nicholson. In the controversy Bickerdike seems to have won, and the following concession was made by Pigou on the subject of the divergence of individual interests from the national interest: "Bickerdike's paper has suggested to me that the method of approximation employed in my book is more questionable than I had supposed, and demands more careful investigation."[50] One can only wonder if this realisation had anything to do with Pigou's later interest in Welfare Economics.

There were two other economists who joined this discussion, Edgeworth and S. J. Chapman. In his famous series on "Appreciations of Mathematical Theories,"[51] Edgeworth very highly praised Bickerdike for saying "something new on Protection." More than once Edgeworth expressed his praise for and his indebtedness to these articles.[52] "It has been known," Edgeworth said, "that under certain circumstances a country may benefit itself at the expense of the foreigner by a customs duty. Mr. Bickerdike adds to our knowledge of the circumstances. The taxes should be incipient or small finite taxes. In the case of incipient import taxes the tendency to advantage is greater the more elastic the demand of the taxing country for the articles taxed. That demand is more elastic when there is an untaxed home supply, that is, when the tax is protective." Apart from this clear exposition, Edgeworth found support for Bickerdike's argument in recent developments in mathematics, and added that the peculiar and unlikely case which the latter had mentioned was impossible. What Bickerdike had really done was to dispense with the need of a detailed enquiry into the conditions of demand and supply. All that was necessary, he claimed, for the purpose of using such taxes successfully was the condition that "the elasticities of supply and demand should not be of an extreme character — extremely small for the home country or extremely great for the foreigner."

The achievement for pure theory was, as Edgeworth put it, that "the free trader must abandon his hectoring tone with reference to the defence of a protectionist tax on the ground that it is a little one."[53]

Even though Bickerdike had only developed some of the intimations inherent in Edgeworth's own thought on tariffs, Edgeworth did not commend the new theory for practice. He emphasised the elements of unverified probability that still remained in the theory and also referred to the contemporary conditions of British trade as inopportune for such taxes. This argument also came a little too late for the tariff reform movement and I do not know, except perhaps for a hint in one of the later editions of Ashley's book, *The Tariff Problem,* if any further use was made of it in England before the war. Edgeworth also pointed out the main danger of such uses of tariffs — they invited retaliation. He called the result of Bickerdike's discovery "poison". It is not clear what Edgeworth really meant by calling it "poison". But it appears that, as with poison, he would have sanctioned medicinal applications of Bickerdike's analysis.

It seems to me that Schüller attempted to find out the optimum height of tariffs for backward (or comparatively underdeveloped) countries, which was the object of the infant industry argument put forward in imprecise terms by Hamilton and List. These tariffs, Schüller argued, should be just high enough to offset the superior advantage of an earlier start enjoyed by the imports of foreign manufactures from industrially advanced countries but should do no more than this. Such tariffs would then only restore perfect competition, the basic condition for free trade in international markets from an ethical point of view. The argument, it appears, is analogous to the one used by the neo-classical economists to support collective bargaining by trade unions or to fix minimum (that is, competitive) wages in trades where the workers were ineffectively organised. Bickerdike's argument went beyond Schüller's; it was an attempt to exploit a monopoly position, and not to establish a competitive one. He tried to indicate the optimum level of tariffs — or the optimum limits of export and import prices — with reference to the given superior position of a nation and thus designed to maximise its advantage. But it might be harmful to do so, or it might bring retaliation if the export prices or import prices were already at the most advantageous levels for the nation, without this kind of state interference. This is, it appears, the real limitation on the terms of trade argument for the use of tariffs, which to a certain extent Edgeworth and Marshall both tried to indicate. It may well be that the private businessmen's knowledge or appreciation of the elasticities involved in foreign trade are wrong, and the state might guess them more correctly, and in that case there may be room for such tariffs. Part of the difficulty of that age arose from its way of looking at exports or imports *en masse* and thus ignoring a treatment to which the varied and different commodities (different with respect to their elasticities) constituting exports and imports could always be subjected to yield an advantage to the nation. The two commodities (cloth and wine) of earlier models had grown into Marshall's "representative bales" of exports and imports without any significant change from the point of view of the theory of tariffs. Exports and imports, however, were split into different bundles and labelled raw materials, manufactures, necessaries, etc. at a later stage (in Cunynghame's case, for instance, or in the case of discriminating protection of German protectionists), and at a still later stage were broken into commodities of varying elasticities of demand and supply (as by Edgeworth, Pigou, Bickerdike). Here was another way in which Marshallian concepts played a part in the evolution of the theory of tariffs. The concept of elasticity introduced a classification of commodities more appropriate to a theory of exchange.[54]

S. J. Chapman's object in his note[55] was to define the conditions of gainful uses of tariffs. He did not accept Bickerdike's idea of incipient taxes as generally applicable. As in earlier discussions, his argument ran in terms of the special circumstances of the appropriate laws of returns which made for any advantageous use of tariffs.

It is interesting indeed to follow the course of Bickerdike's ideas on the state regulation of foreign commerce through taxes on imports or exports or otherwise after 1907. He reviewed a number of books on international trade and Foreign Exchange for the *Economic Journal* and never reviewed without throwing some new light on the subject of the book. These reviews and articles[56] extend much beyond 1915 and it would be outside the scope of this enquiry to examine them in detail, but a few indications may not be out of place.

(a) He thought, it appears, that a substantial amount of unemployment was the normal rather than an exceptional state of things — an assumption which the free trader did not accept.

(b) The advantage of free trade was in the diminished labour cost of imports. But non-protected imports could be obtained on improved terms of exchange if there were a restriction on some imports. This gain would offset the loss due to the less economical use of labour in the protected industries.

(c) Like his contemporaries Bickerdike also considered the infant industry argument as a particular aspect of the general case of using tariffs for bringing the law of increasing returns into operation.

(d) He also recognised the importance of political and military considerations in the after-war years as a new reason for putting restraints on trade.

(e) In 1917 he had anticipated balance of payment difficulties, as well as the possibility of exchange instability after the first world war, and as a solution advised restriction on trade and a state supported agriculture to diminish Britain's need for importation. In this case Bickerdike showed a concern which reminds one of Professor Robinson.

(f) In view of the competitive nature of some imports, free imports, Bickerdike held, would always tend to reduce "the wages of the workers just as if the foreign labourer himself came into the country." The argument might be a little exaggerated, Bickerdike agreed, but "it was not to be too easily dismissed."

(g) As I have indicated before, almost always he pointed to the failure of unregulated individual efforts to bring about the maximum advantage to the community and justified state action for that reason.

(h) He considered the devaluation of currency and the taxation of imports alike in effects but he was aware of the conditions when import restrictions would serve the nation better than currency devaluation. Bickerdike was inclined to define elasticities in terms of money, which Edgeworth thought had certainly some advantage over Marshall's description in terms of real prices. He, with Pigou and, of course, Edgeworth,[57] shares the importance of being the first to point out that the elasticity of demand or supply forms the criterion whereby to judge the consequences to a country of a tax or other restrictions imposed by itself or by the foreigner on the trade. Justifying Bickerdike's use of "a national money of constant value" in place of a barter analysis Edgeworth remarked: "For the consideration of the consequences of taxation, the use of money, it may be admitted, is convenient. It avoids certain difficulties to which the careless use of barter analysis is liable."[58]

We are now in a position to indicate the main lines of development in the pure theory of international values:

(a) a more exact statement of the conditions when the state should or could successfully interfere to regulate the external aspect of the economy,

(b) introduction of a stable money in the analysis which was previously conducted in barter terms,

(c) a clearer grasp of the assumptions behind the classical theory of international trade.

One should never forget that behind all this achievement, initiated by Edgeworth and completed by Bickerdike, lies Marshall's work, though it is perhaps correct to presume that Marshall disagreed with some of the later uses of his own foreign trade curves to justify protection.[60] There was perhaps a difference between Marshall and Edgeworth in their way of looking at the international exchange problem just as there was in their approach to wage determination.[61] My impression is that unlike Marshall, Edgeworth thought more often in terms of the imperfections of the market, inelasticities and the short period.[62]

Broadly speaking, only one of the assumptions of international trade theory underwent a change during this period. The change, however, was significant. One basic assumption of the theory had always been that the "trading bodies" whose exchange relations were studied in the neo-classical period after Jevons, behaved as perfect markets (free movement of factors within countries) with their given factor endowments. (We might add, per head of population, to allow for steady rates of growth in Marshall's sense, if we like.) Change in the factor endowments, quantitative or qualitative in any direction, was ruled out, partly by the "immobility premise".[63] It was, however, growingly realised, during the period, that these "trading bodies" fell short of perfection. The controversy between Edgeworth and Loria turns really on this realisation. Thus even though the economists accepted the factor immobility assumption, which they realised was largely incorrect for that period (though it has more relevance now), they had to take into account the implications of their imperfectly competitive, imperfectly mobile and imperfectly integrated "trading bodies".[64] There was another significant change. The concept of trading bodies (the expression was first of all used by Jevons in his *Coal Question,* 1865) was till about Marshall's time not nationalistic. "Trading bodies" were just a summation of individual interests and not nations. (Compare Bickerdike's criticism of Pigou for instance.) These "trading bodies" in the course of these years came to be looked upon as nations, endowed with interests, gains, aspirations and costs of their own, and viewed as different from the aggregated interests of the living generation of individuals constituting them.[65]

If we approach international exchange problems from a national angle, the problems of the long term and of the short term both appear to be different. It was precisely these changes that were taking place in the inarticulate assumptions of the classical theory of international trade. It should also be remembered that the classical analysis of international trade was essentially static; and like the static value theory, it was subject to a certain *ceteris paribus* hypothesis. The assumption of international factor immobility and of the absence of any change (quantitative or qualitative) in given factor endowments and proportions, provided a basis of "other things being equal" similar to that employed in the general theory of value. It was very often forgotten that the free trade conclusions of the theory of international trade rested on this assumption, implying the unchanging relative position of "trading bodies."[66]

II. COMMERCIAL POLICY AND THE ECONOMISTS

We shall not enter into any historical analysis of the tariff reform movement.[67] One can construct a picture of Tariff Reform from a large number of articles and reviews which appeared in the *Economic Journal.* The controversy, however, was much more widespread than the *Economic Journal,* and one can get no more from the latter than an idea of the impact of the movement on economists.

It is well known that the British faith in free trade underwent some decline towards the close of the 19th century. The first cause was the so-called " Great Depression," which has been subjected to much recent analysis.[68] The second was the changing position of Britain in export markets on account of the rise of Germany and America as rival exporters of manufactures. The growth of transport facilities had enabled the United States to export vast amounts of agricultural produce. This had depressed agriculture in Britain as well as in Europe. There was for that reason a strong protectionist revival in Europe,[69] and the result was a certain recession in export of some manufactures on the part of Britain. It would be out of place to examine whether there was a depression in Britain from 1873-1896, and, if so, to discuss its nature. Enough has been said on these aspects of the history of the British economy, by Clapham, Rostow and Beales and in an earlier period by Marshall in his evidences, and by D. A. Wells; and for a different point of view we can refer to the writings of Foxwell and other Bi-metallists. There was a correlation, and it is all I want to indicate, between these years of falling prices and a demand for the reopening of the tariff question.

There were two widely held views on the subject of British commercial supremacy and prospects. It appears that the historically minded economists, such as Ashley and Cunningham, took a gloomy view, but other economists did not find the conditions so alarming. The economists who thought that the available statistics of export trends were disconcerting, advocated a new tariff policy and favoured projects to promote British trade within the Empire. On the other hand, economists who were more hopeful, and who considered that the fall in the volume of particular exports or the decline of certain industries was an inevitable consequence of progress, outbalanced by the growth of the economy and of exports in other directions, held a contrary view.

The trend in world trade has unmistakably been on the side of those who feared a slow decline in British commercial supremacy, and as had been predicted by some of these economic historians and pleaded by some politicians at that time, Britain had to move towards a preferential system of Empire trade. But was there a justification for such overhaul of British commercial policy around 1903?

The answer is probably "No," and the reasons which were given at the turn of the century to retain the existing tariff policy and to reject the change suggested, appear to have been sound, because they were largely based on empirical considerations. The Tariff Reform Movement failed because it was a political movement, and was wrongly timed. It did not take into account what was really happening to the British economy when some parts of western Europe and America were industrialising. The first point was very well made by Sir David Barbour:

"The fall in prices after 1873 was unfavourable to Free Trade and gave a great stimulus to protection . . . and it is beyond doubt that protection tends to mitigate the effect of appreciation. The rise in prices which we are now experiencing has the opposite effect. . . . The political agitation in England of what is called tariff reform was begun at a time which was unfavourable to any chance of success which it might have possessed under different conditions."

Writing in 1913, Keynes commented on the above as follows: "Thus it may not be too fantastic to maintain that Mr. Chamberlain's policy in South Africa in so far as it led to an increased output from the mines helped to set forces moving which were calculated to bring his other policy to nothing."[70]

The gains from international trade very largely depend on the quickness with which an exporting country adjusts itself to the changing demand conditions in the export markets. It might as well be said that one of the underlying assumptions of the classical theory of international trade was that such quick adjustment does in fact take place in the economy. What England needed most when some parts of Europe and America were emerging as industrialised nations and as rival exporters of manufactures, and changing the pattern of their imports from England, was to readjust her economy and the structure of her foreign trade to those changing conditions. That was precisely what was happening slowly, and a system of tariffs would have hardly facilitated this process.

But let us examine some views put forward during the debate, and especially the logic of the case for preferential tariffs, in some ways a new argument for protection. We must also consider other arguments put forward for the use of tariffs, as for example the arguments that tariffs should be used as an instrument of bargaining, and as a defence against dumping.

The most outspoken advocate of the view that British supremacy was not in doubt was Sir Robert Giffen. He was, as is well known, the leading statistician of the time, and he made good use of the available statistical evidence to show that the factual basis on which the Tariff Reform Movement was based, was unsound. He also made use of the statistical evidence to point out the inadequacy of protective tariffs as a policy for deliberate industrialisation.

To undermine the case for tariff reform in England, Giffen studied the export performance of Britain along with that of other rival countries over a number of years and showed that there was hardly any cause for alarm on that account.[71] The advocate of tariff reform, he argued, claimed that "there is an immense margin of unemployed labour at home waiting to be employed if the state can only give the right direction to the forces at its command, but there is no such margin in a country like England."[72] "I am disposed to hold that the conditions of prosperity in this country are generally stable. It was a mistake to fix attention on specific industries as necessary to a particular community . . . . What was needed was a great variety of population, great industrial and commercial capacity and large capital. If the latter are assured, any specific trades are not essential. The community ought in fact to follow the times and to be continually changing . . . the indispensable industry of one period may sink to quite a secondary place at a later date and perhaps altogether disappear."[73]

Giffen also examined the protective systems at work in Australia and the industrial pattern that had emerged there, and pointed out that tariffs were incapable of creating certain heavy industries in the absence of a home market.[74]

It may be pointed out that the neo-classicals, even though they had come to accept the infant industry argument, never thought, and very rightly, that protection alone would stimulate the rise of an industrial system in an economy unprepared in other ways. They considered a large population, capital and enterprising ability as essential for economic growth, even more so than protective tariffs.[75] As Giffen pointed out, there were certain minimum economic scales of operation for the various industries which were statistically determinable, and if this production could not be consumed at home such industries could not be devoloped. The actual experience of Australasia had conclusively proved that tariffs in a new country would only induce industries of a local character and not the great textile or metal manufactures. "Protectionist policy," Giffen said, "was opposed to the force of circumstances, and another generation or two will probably see the last protectionist politician throughout the world. The breed I think is very nearly extinct."[76]

These lines show the essentially dogmatic tone of Sir Robert Giffen and point out the typical English way of looking at the problem of economic growth and protection in the late 19th century. There is some truth in his views on the difficulty of industrialising small countries with small populations on the western model without resorting to exportation or to a "horizontal" customs union as recently suggested by Myrdal.[77] The difficulty which Giffen pointed out in 1899 had been stressed by recent writers on industrialisation and trade.[78]

In answer to Giffen, W. P. Reeves expressed the mood at work behind the protective tariffs of Australia and New Zealand, and his argument is worth quoting because it brings out the basic political assumption behind the use of protective tariffs in the case of the primary producers:

"These countries had to think of developing manufactures because it became part of their belief that farming and grazing were amongst the least profitable of the world's occupations . . . there was greater need for state action to promote industrialisation in the new country than in the old . . . it was dangerous to depend on a single stable export, wool."[79]

It is interesting to reflect how little the case for protection or for the deliberate industrialisation of underdeveloped countries has changed. These lines have only gained in weight with the more recent statistical enquiries of the United Nations.[80]

The proposals of Tariff Reform initiated by Chamberlain and others provoked a number of British economists into writing a letter to *The Times*. The letter (which was later reprinted in the *Economic Journal*) was drafted by Edgeworth and was signed by most of the leading economists, including Marshall, Cannan, Bowley and Pigou. The only important exceptions were Foxwell, Hewins, Palgrave and L. L. Price. This letter is a very important historical document showing the attitude of British economists to the question of commercial policy and its relation to recent theoretical developments.[81]

The letter pointed out that increase of imports did not bring about unemployment. If food imports were taxed, prices would rise and because there would not be an equivalent rise in money wages, real wages would fall. Such taxes would in no way promote food production in the colonies and would only drive industry to unnatural courses. The tax collected would not compensate for all the losses, and the burden thrown on the foreigner would be negligible. From an examination of the effects of a specific import tax on corn, the letter went on to voice general fears. " We think," the economists urged, " that any system of preferential tariffs would most probably lead to reintroduction of protection into the fiscal system of the United Kingdom. That would be detrimental to the material prosperity of the country . . . in consequence of the greater proportion of food and raw material imported from foreign countries than formerly and the greater extent and complexity of our foreign trade." They also emphasised that once protection comes in it would be " very difficult to extirpate," and would bring in its train " evils other than material " such as political corruption, unjust distribution of wealth, growth of sinister interests and irritating controversies between different members of the Empire.

It seems that this letter is concerned not with any theoretical position so much as with questions of fact, and with the general presumption on non-material grounds against any departure from a policy of free trade. In their theoretical judgments on protection, as we have already seen, most of these economists spoke with far more caution and discrimination than earlier advocates of free trade. Marshall's *Memorandum on the Fiscal Policy of International Trade* written in the same year, although not published until 1908, covers the same ground as does this letter in greater detail. One can detect an equal emphasis on the indirect effects and non-material elements involved in various systems of import duties. It was not possible for that age to discuss fiscal policy without reference to all these elements, and it would be difficult to dissociate them at any time.

Marshall's *Memorandum* is well-known, but it may not be out of place to draw attention to some of the aspects of it which throw light on Marshall's own views on tariffs.

We should be concerned, Marshall felt, with settled trade relations and not with exceptional or temporary incidents, in matters of commercial policy. It would be wrong to apply to international trade what was considered bad business as between individuals. On the whole, tariffs, which do not protect nascent industries, develop cartels and trade combinations and very often retard the advance in real wages. The world market in which England was now selling, Marshall indicated, was much more competitive than it was in 1840s and there was very little chance, in 1903, of throwing the burden on the foreigner.[82] Besides, there was no danger " in the near future " to England from import duties placed on her exports of manufacture. The developing new countries needed capital, and vast amounts of manufactured imports for a long time to come, and there were many parts of the world without any organised industries. The danger, if at all, was possible in the very long run when subsequent increases in world population would make raw products scarcer and producers of surplus raw products might extort very high prices from the more densely peopled areas of the world. It is perhaps not possible to come across any other expression of this nature on Marshall's part of anxiety for England's future. It is in fact much more than just a passing anxiety, it is the reiteration of classical economists' fear of population and of the diminishing returns on land which had vexed Mill so much and which Marshall had almost overcome.

Marshall seems inclined to think that the International Trade market was becoming increasingly competitive during the early years of this century; and, in view of the continuing import requirements of the rest of the world, including the newly industrialised countries, a "terms of trade" argument for protection was not worthwhile. More important than retaliating against hostile foreign tariffs, it was urgent for England, he thought, to be alert and inventive, and to try hard to retain her industrial leadership and be at least one of the industrial leaders of the future.

It is said that Marshall wrote this *Memorandum* to answer some of the point raised by Balfour in his *Notes on Insular Free Trade*, and to assist a certain free-trader member of Balfour's Cabinet to argue out his case.[83] Balfour and Chamberlain were the two most important non-academic persons who wanted to reverse the fiscal tradition of " taxation for revenue alone " and they advocated tariff reform in view of their " dynamic " considerations of the future course of British export trade. Balfour wanted to make use of tariffs as instruments of bargaining and retaliation also. What Balfour failed to do in his *Notes*, and this was the question on which the whole issue of Tariff Reform turned, as Pigou pointed out, was to bring "these undisputed or indisputable, hypothetical reasonings into relation with the actual facts of the present circumstances of England."[84] This was necessary to justify a practical policy. The economists who were with the Tariff Reform Movement attempted to justify a change in policy, at least a reconsideration of the whole question. We shall review very briefly what they had to say.

L. L. Price wrote a number of articles[85] and reviews in the *Economic Journal* on the theoretical and practical aspects of the tariff question, and with Edgeworth and Bickerdike was perhaps the third Oxford man to give a protectionist tilt to the theory of international trade. He opposed some of the dogmatic assertions of Giffen and William Smart and showed that the debate between protection and free trade is not closed but open, and theoretical reasoning has shown a tendency to incline against and not in favour of unqualified free trade.[86]

"Our Fiscal policy," Price claimed, "is open to the same broad criticism which has been advanced successfully against the general principles of *laissez faire*, i.e. the absence of any certain guarantee of an identity of interests between the present and the future, or between those of the individual trader and those of the community." This, as we know, was the basic theme of Welfare Economics as developed by Sidgwick and Marshall. Price also referred to the pressure of monopolies in international trade which still further widened the gulf between individual and social interests. It was possible to apply the more recent developments in the theory of monopoly and the marginal analysis, Price felt, more extensively to the treatment of International Trade, and, by discarding the assumption of perfect competition, to make a successful case for state regulation.[87] His support for preferential duties was, however, based on the slackening in English exports of manufactures in European markets, and on the growing importance of her Colonial trade.

Ashley used very similar arguments.[88] He was extremely candid in indicating his political objective, application of tariffs "to make something better of the self-governing Colonies than a set of second-rate states shivering beneath the shadow of the two great empires of the future," Russia and the United States. He thought that state regulation would very soon extend to foreign trade, that being a lesson of history judging from the growth of orderly control after a brief interlude of the free play of individual self interest. Recent developments in economic theory, Ashley claimed, lent support to a reconsideration of the case for protection. He referred to the growing use of retaliation and reciprocity agreements and the gradual abandonment of *laissez faire* in other parts of the world and justified tariffs "for preference and for negotiation." His later position, in the third edition of *The Tariff Problem,* appears to have been in favour of a low tariff. He also found the composition of British exports, and the importance in it of coal, and the falling British percentage in world shipping tonnage, especially disconcerting.

W. A. Hewins was another economist who supported Chamberlain's proposals. Hewins very seldom wrote in the *Economic Journal* but he later restated his case in his *Trade in the Balance.*[89] He thought that it was necessary to use tariffs to revive British industry and to consolidate the Empire. It was a great mistake to suppose, Hewins argued, that to justify protection it was necessary to establish the fact of the absolute decline of British industries. The vital thing was the relative decline of Great Britain. The Tariff Reform Movement led to studies indicating such a relative decline of British industries,[90] and Hewins made a large contribution towards this aspect of Tariff Reform. "If we could not maintain the supremacy of Great Britain, at least we could maintain that of the British Empire as a whole." This indicates his "Imperialism." The two other economists who supported Tariff Reform were W. Cunningham and H. S. Foxwell. Foxwell never wrote specifically on the Tariff question, but his general position was more or less on the side of Tariff Reformers. Cunningham viewed free trade as "a remnant of the philosophy of *laissez faire*" incompatible with the judicious use of the state for conscious co-operation.

It is clear from this account of the views of various British economists[91] that the issue turned mainly on questions of fact, or on value judgments as to the future significance of the Empire. The arguments used were, besides what we have indicated in an earlier section, the growing emphasis on the divergence of individual and social interests, and on the future of British commercial supremacy. It is to the examination of these arguments and to the statistical studies stimulated by the debate that we now turn.

III. STATISTICAL AND HISTORICAL STUDIES (I)

Chamberlain's proposals had not only stirred up controversy on the general subject of fiscal policy but led on to an examination of the practicability of preferential systems in general; and in particular to a review of certain protective systems at work. Naturally the chief interest lay in the investigation of the origin and the development of the protective systems in Germany and the United States. One writer showed that protection in Germany was readopted in 1879 to rescue the economy from its apparent condition of decadence, and once adopted, grew from strength to strength.[92] On the whole, however, this writer, Dawson, was sceptical of a preferential system, and at a later date even felt that "anything that will stimulate productive industry will do more to prolong England's hold upon the trade of the world than a hundred Imperial conferences."[93] The German experience which Dawson analysed showed the unimportance of protection as a cause of Germany economic and commercial growth, it also proved the difficulty of de-protecting an industry and the possibility of a continuous erosion of *laissez faire* from humble beginnings of protection. The neo-classical economists appear to have objected to protection mainly because it violated the "natural order of things" and was a step towards the erection of a regulated and therefore an artificial system; and they were willing to bear certain disadvantages if planned state intervention could be avoided. The German experience provided part of the support to the arguments of the economists against Tariff Reform. Part of the support came from the American experience. There, even though Taussig's empirical studies[94] lent support to the stimulating effect of tariffs on the rise of young American industries, immoral consequences, administrative difficulties and the stickiness of the system had also been observed. It was, however, difficult to make quantitative statements on the experience of the infant industry argument which would not be open to some objection. There were obvious difficulties of administering a protective system;[95] the English economists found these difficulties so overwhelming that they became defenders of the existing system or as Marshall put it, "absence of a system." On the other hand, the popular supporters[96] of a preferential system presented the Colonies as the most promising markets for British trade in the future and referred to the dangerous neglect on the part of Britain of export drives by foreign governments to obtain a larger share in the world and particularly Colonial trade. They also drew attention to the precarious British dependence on outside food and raw materials supplies,[97] and considered the growing magnitude of Canadian trade with the U.S.A. with alarm. One might say that in their arguments less is made of German competition as a cause of the unhappy export performance of Britain; it is the lack of appreciation of the future significance of Colonial and Indian markets which they condemn.[98] Attempts were also made to study how far the home supplies of coal could sustain the strain of growing use and exportation.

A large number of writers in the *Economic Journal* examined the possibility of making any scheme of preferential tariffs successful. The arguments that could be advanced against a free trade system, it may be pointed out, could with equal success be used against a Customs Union and the converse of this proposition would also hold. Some of the articles pointed out that the British interests often conflicted with those of the rising manufacturing interests of Canada, India or other Dominions. Almost every Dominion wanted to use tariffs against Britain to promote industrialisation within its own frontiers and a scheme of preference, it was argued, would not help her. Nor would a preferential scheme immediately assure necessary supplies of food and raw materials from Empire sources.[99]

There were writers like J. S. Nicholson[100] who advocated projects for introducing a solidarity in the Empire without risking the policy of free trade, but on the whole the support for the preferential scheme among the more orthodox section was very little. An Austrian economist, Leo Petritsch, tried to judge the policy proposed by Chamberlain in the light of similar attempts made in the past to bring two or more regions together.[101] National aspirations and interests, he pointed out, very often clashed in a Customs Union, and the difficulties in conciliating the manifold divergent interests which such a Union had to face made such experiments impossible. Modern experiences of running a Customs Union or agencies of that sort bear out this view. All such attempts have eventually to be reinforced by a measure of co-operative planning;[102] and there are many difficulties involved in such association of countries at different stages of economic growth.

Economists before the first world war considered good international relations and large foreign investments helpful for the growth of a country's trade;[103] they also realised the comparative unimportance of tariffs for that purpose; or for the purpose of industrial development. Such views were almost general.[104]

An international economy is no longer viewed as the absence of a system. It is being increasingly realised today that a large degree of international co-operation and management is needed to ensure full employment of manpower in all national economies and a speedy return to free trade system. Many international agencies have grown up since the first world war. The experience of all these bodies has shown that in order to remove all barriers to trade, co-ordination of national policies, and a good deal of deliberate international co-operation are required. For instance, as Tinbergen points out, factor movements, especially movement of capital from the more developed to the less developed countries of the world will have to grow considerably, and the volatile character of the prices of certain agricultural commodities and the relation of these prices to those of manufactured goods have to be kept within reasonable bounds. Population policies to reduce the birth rate in some of the Asian countries would also be necessary. Professor Meade thinks that in addition to other things, exchange rates will have to be more variable. Myrdal's view is that certain rich countries will have to accept the use of tariffs against them by other less prosperous countries without retaliation, in order to assist the latter in solving their balance of payment difficulties, inevitable if these countries are passing through a phase of deliberate industrialisation. That all these requirements of a free trade system are pointed out today and corresponding policies are suggested, indicates that unlike the neo-classicals, the economists now consider the freeing of world trade not only a negative act of pulling down barriers to trade, but as an ideal to be realised through positive acts of international and co-ordinated national action.[105]

IV. STATISTICAL AND HISTORICAL STUDIES (II)

Apart from these more or less partisan studies there were non-partisan studies by A. W. Flux, A. L. Bowley and Alice Lee. Flux took Giffen's inquiries as his model for his periodic studies of the export performance of the rival exporters of manufactures.[106] These studies served to correct the exaggerated fears of German competition and have pioneered a long tradition of such statistical investigations. Most of Flux's analysis ran in terms of the changes in the direction of world trade and not in terms of composition. Changes in the composition of world trade and in percentage shares of the main exporting countries have received a good deal of attention in recent years.[107]

Bowley wrote infrequently in the *Economic Journal* during those years, but his contributions are scientific in the best sense of the term, and in some of his articles he designed tools of analysis of great importance. Consider, for example, his note on Import and Export Index Numbers.[108] It was an attempt to construct for the first time the two halves of what has now become the "terms of trade". This attempt was the empirical counterpart of the theory of International Values and a concrete evaluation of gains from foreign trade, which had claimed so much attention from the economists in the later part of the 19th century. It had become necessary to estimate numerically these gains from foreign trade over time coming in without the support of tariffs to provide a basis for argument for or against the use of tariffs. The idea was simple, it was an extension of the principle of price index numbers and attempts had already been made in the *Economist* to construct them. "We are aiming at the numbers," Bowley explained, "which shall best represent the general change of prices of imports and exports. Our result gives the ratio of the declared value of the goods to the value they would have had if their prices had remained unchanged." Bowley was aware of the Index Number Problem to which these new index numbers were also subject, but with all their weaknesses they appear to have been accepted as a useful instrument for the examination of developments in international trade. Index Numbers of various sorts continued to multiply, often because of the very opposition they had to face. Besides

Bowley, Flux also independently constructed the Terms of Trade, and various other varieties of index numbers.[109] The *Economic Journal* reflects the importance which statistics came to achieve during the few decades before the war. Very often we fail to note the continuity of the tradition of Tooke, Newmarch and Jevons; it is therefore important to recall the works of Giffen, Flux, Bowley, Wood and many others, who handed down this tradition to a subsequent generation of economists.

The main reason for this great progress in statistical investigation was the preoccupation of the age with matters of policy for which economic theory alone was an inadequate aid. Economic theory often leaves the quantitative solution of a problem indeterminate, and the statistics which had a bearing on policy were, in those days, more often than not, incomplete. "So many questions in political economy being questions of degree," Giffen once said, "it may be wondered that appeal is not made more frequently to statistics to help in their solution."

Applying statistical methods to fiscal controversy, Bowley formulated the following identity: Residue of excess of imports over exports = Interest sent to Great Britain + Capital Invested in Great Britain − Interest sent abroad − Capital Invested abroad.[110] This identity clearly indicated the more elusive elements on either side of the Trade Balance. He went on to suggest that the question before the nation involved a dynamic and not a static approach, and every estimate of gains from foreign trade was to be examined in relation to corresponding estimates for previous years. His new index numbers were intended to do this, "Over sixteen years goods exported have risen about 4% in price, while prices of imports have fallen 9%. This looks like profitable business." Such a statement would have silenced any advocate for a change in fiscal policy.[111]

Another statistician, Alice Lee, made a pioneer attempt to study econometrically the relation between the rate of change of imports of manufactures and the absolute level of unemployment and its rate of change in England[112] Her findings were against the Tariff Reform Movement. It is understandable that questions of unemployment were not much discussed during the Tariff Debate, but unemployment claimed the attention of the economists only intermittently over the years 1890 to 1915. But in the course of one article Professor Dietzel, who was himself a free trader, tried to determine the comparative effects of free trade and of moderate protection upon the stability of the labour market.[113] The chief danger of a free trade system, he argued, was "dumping" from abroad, and the chief danger under protection was a greater risk of crises in the home market. Only if the national market was more important for a country than the foreign, would protection bring more stable conditions than Free Trade. On the whole, Dietzel underestimated the dangers to Britain from what he called a systematic "trust dumping". He claimed that Free Trade had given economic stability as well as growth to Britain since 1846, and protection would neither bring stability nor, if moderate, give protection against dumping. Pigou also pointed out the weakness of this case for Free Trade on grounds of stability and admitted that in so far as protection involved monopoly it might conceivably mean greater and not less stability than Free Trade. It is a fact that the actual damage done to British industries by dumping was small. Some industries like the tin plate or sugar were however affected.[114] But it is important to remember that almost every free trader would have supported tariffs against dumping. Dumping appeared to the age of Marshall — as it does now — as an unfair practice. It was unfair because it was selling below normal cost. Marshall feared dumping himself, and in the course of a letter to Professor Brentano, he wrote:

"Retaliation — especially against indirect bounties, and against 'dumping' down sugar and other things at less than cost price — seems to me more insidious, and more likely to lead to real protection than 'Imperial Federation'." "Sooner or later," Marshall wrote in another letter to Brentano, "I fear that the 'dumping' question will be the ruin of our Free Trade. But I am quite sure we shall never have any considerable taxes on food . . . . These guesses are, however, very wild."

These letters were written when the tariff reform controversy was at its height, at the time when Marshall wrote his *Fiscal Memorandum*.[115] He felt that dissociating price from cost for long together was a lapse from the rules of the game, and keeping price close to the normal cost of production was the ethical norm for private enterprise. The majority of neo-classical economists were of this view, and that meant that in all cases where pricing was unfair — that is below cost — they would have approved of state intervention to restore fairness. This referred not only to their advocacy of tariffs against dumping but also to their attitude towards state interference with other instances of unfairness, as in the case of unfair wage contracts. We examine this aspect of state interference with the labour market in the next chapter.

NOTES

1 For Mill's views on international trade theory, see in addition to his *Principles, Migration and Economic Growth* by Brinley Thomas.
2 See Edgeworth's articles on the " Pure Theory of International Values ", *Economic Journal,* Vol. iv; Cunynghame's " Effects of Export and Import Duties ", *Economic Journal,* Vol. xiii.
3 Edgeworth, op. cit., p. 37.
4 See *Economic Journal,* Vol. xi, pp. 226—, 85—, 582—.
5 See the articles of Pigou and Bickerdike and the discussion between them in *Economic Journal,* Vol. xvi, xvii and xviii. Also see Vol xix.
6 See Bastable's *The Theory of International Trade with some of the Applications to Economic Policy,* 1st Edition, 1887, and his article on " International Trade " in the *Palgrave,* Vol. ii, p. 451.
7 Bastable, *Theory of International Trade;* 4th Edition, Chapter 1.
8 Compare Edgeworth, *Economic Journal,* Vol. iv, pp. 35—36.
9 For a brief account of the neo-classical attitude on the question of the foreigner bearing part of the burden of the tax on exports and imports, see Pigou, *A Study in Public Finance,* (1928), pp. 195—217. Bastable attempted to restate his views on this on the lines of J. S. Mill in a paper he read before the British Association in 1889. Earl R. Rolph in his *Theory of Fiscal Economics,* p. 172, also discusses this attitude.
10 See *The Pure Theory of Foreign Trade,* (1879), London School Reprint, 1930.
11 *Economic Journal,* Vol. iv, p. 35 and 49.
12 See Edgeworth's *Papers,* Vol. ii, p. 4.
13 *Economic Journal,* Vol. iv, p. 36.
14 For an account of attempts made by J. S. Mill in this direction, see Schumpeter: *Economic Analysis,* pp. 608—609. Also see Viner, *Studies in the Theory of International Trade,* p. 527, and Ohlin, *Inter-regional and International Trade,* pp. 567—568.
15 *Economic Journal,* Vol. iv, p. 37.
16 *Economic Journal,* Vol. iv. p. 48.
17 Edgeworth continued to treat import and export taxes as dissimilar in effects until, in the course of a controversy, Bastable convinced him that in fact these taxes were symmetrical. A. P. Lerner has, once again, drawn attention to this symmetry in his article, " The Symmetry between Import and Export Taxes " in *Economica,* August 1936.

18 *Economic Journal,* Vol. iv, p. 48.

19 For biographical details see Keynes's obituary note on Cunynghame, *Economic Journal,* June 1935. Cunynghame was the first to publish an article on mathematical economics in the *Journal,* (1892). In 1904 he published his *Geometrical Political Economy,* being an elementary treatise on the method of explaining some theories of pure economic science by means of diagrams. He held that there were fundamental differences between short priod and long period cost curves, against Marshall's views on the subject. Here Edgeworth agreed with him, see Edgeworth's review of Cunynghame's book, *Economic Journal,* 1904; and his articles on the "Pure Theory of Taxation," *Economic Journal,* 1897. Keynes refers to Cunynghame's versatility and his social sympathies in the obituary note.

20 *Economic Journal,* Vol. xiii, pp. 313—323.

21 "For though mathematics enables us to reach further into the heart of a problem than any other logical method, yet what we gain in depth we lose in breadth and we are obliged to make so many assumptions that our results are rather aids to thought than practical conclusions." Cunynghame, *Economic Journal,* Vol. xiii.

22 *Economic Journal,* Vol. xiii, p. 322—.

23 See Keynes's obituary note on Cunynghame, *Economic Journal,* 1935.

24 "Diagrams cannot decide the question of Free Trade against Protection. Perhaps the real truth about Protection", Cunynghame says in his book, *Geometrical Political Economy,* pp. 97—, "is that it is a medicine. Before giving it you ought to find out whether the patient is ill, next, whether the proposed drug will make him better and, how much you are going to administer. The course you adopt will depend more on empirical therapeutics than on theoretical considerations." Quoted by Edgeworth in his review of this book, *Economic Journal,* March 1905.

25 *Geometrical Political Economy,* p. 97.

26 *Economic Journal,* Vol. vii.

27 "Can Foreigners be made to pay our Taxes", *Economic Journal,* Vol. iv.

28 *Economic Journal,* Vol. iv, pp. 35—36.

29 *Economic Journal,* Vol. xviii, p. 541.

30 In the *Economic Journal,* Vol. ii, pp. 397–403. Bastable, *On Some Disputed Points in the Theory of International Trade, Economic Journal,* Vol. xi, p. 226: Loria, A., "Notes on the Theory of International Trade", *Economic Journal,* Vol. xi p. 85 (see specially p. 88); Edgeworth, "Disputed Points in the Theory of International Trade", *Economic Journal.* Vol. xi, p. 582.

31 Loria's argument runs as follows: "The classical theory admits that trade may be established between those nations only in which the comparative cost of their products is different, and that for this very reason, there is no ground for its existence between nations in which the comparative cost is equal. Edgeworth, on the contrary, believes that the divergence in the comparative cost is certainly the essential condition out of which international exchange arises, but that international exchange can continue when, by altered conditions of production and demand, such diver-

gence is done away with. To me it seems absolutely incomprehensible that under such conditions international trade should be able to continue at all." *Economic Journal,* Vol. xi pp. 87—88. Bastable argued: "I find myself, in company with Professor Loria, differing from Professor Edgeworth, viz, the stage at which under the condition of cost, trade between two countries will cease. As trade arises out of difference in the comparative cost, it would seem to be a necessary inference that should these differences cease to exist, the trade which results from them would also come to an end. This doctrine, which has been, I cannot but think, the accepted doctrine of Ricardo and his followers, is impugned by Professor Edgeworth. Difference of cost, he indeed allows, as essential for the opening of trade, but says that 'identity of comparative cost is the essential condition of a steady foreign trade'." *Economic Journal,* Vol. xi, pp. 227–228. Bastable claims that Taussig was also of the same opinion as himself.

32 *Economic Journal,* Vol. xi, p. 229.

33 *Economic Journal,* Vol. xi, p. 582.
Some of the points to which objection was taken were raised by Edgeworth in his review of Bastable's "International Trade", 2nd edition, in the *Economic Journal,* Vol. vii, p. 401, and his review of the third edition of the same book in *Economic Journal,* Vol. x, p. 389. These reviews supplement Edgeworth's views on the theory of international trade and free trade, expressed in his series of articles in *Economic Journal,* Vol. iv.

34 See Viner, *Studies in the Theory of International Trade,* pp. 450—451.

35 *Economic Journal,* Vol. xi, p. 584. Edgeworth quotes some extremely interesting paragraphs from Lexis. They throw light on Edgeworth's own views: "Far-reaching disturbances of economic relations which are to be expected on Ricardo's assumptions, may cause such great evil not only for the capitalists but also for the mass of the working populations that it must often be preferable to forego an international distribution of products that would be in the abstract more reasonable. When it is probable that through the removal of protective tariffs a considerable number of undertakings will be ruined and many workmen plunged into want, it would be better to keep those tariffs so long as such consequences are to be expected from their removal."

36 The theoretical position of the British economists is stated by Pigou to have been as follows: "Of the formal validity of List's arguments there is no longer any dispute among economists." *Protective and Preferential Import Duties,* p. 13; also quoted by Haberler in his *International Trade,* 1936, p. 281. The quotation from Nicholson is from *Economic Journal,* Vol. xi, p. 584, where it was quoted by Edgeworth from Nicholson's *Principles,* Vol. ii, Book iii, Chapter xxviii. Smith's passage is: "Freedom of trade should be restored only by slow graduations and with a good deal of reserve and circumspection." *Wealth of Nations,* Book iv, Chapter 2.

37 *Economic Journal,* Vol. xi, p. 265.

38 G. Myrdal: *The International Economy,* 1956. Appendix.
39 They were reviewed in the *Economic Journal,* in 1904 and 1907 respectively.
40 *Economic Journal,* Vol. xvi, p. 529—.
41 Dr. R. Schüller, "Schutzzoll and Freihandel", *Economic Journal,* Vol. xv; p. 418. An American economist, Simon N. Patten, also attempted in his book, *The Economic Basis for Protection* (1890), to provide a justification for permanent protection. It was needed, he said, permanently for a dynamic and imperfectly adjusted society. He held that social organisms do not develop harmoniously under the stimulus of individual interests. They must be guided by conscious toil and effort in the way in which they should go, by the state. See *Economic Journal,* September 1891; Patten also differed from Marshall and Pigou in some of his views on utility. His *The Development of English Thought,* 1899, is better known and contains stimulating ideas on the relation of the thoughts of British economists to their environments. His book on *The Theory of Dynamic Economics* was reviewed in *Economic Journal,* Vol. ii.
42 *Economic Journal,* Vol. xvi.
43 *Economic Journal,* xvii, pp. 98, 583, 289.
44 The main participants in the discussion have been F. Benham, N. Kaldor, Joan Robinson and R. F. Kahn. It originated in Kaldor's note on Benham's article in *Economica* and was carried on mostly in the *Review of Economic Studies*. A neat version of the determination of the height of optimum tariff is also given by A. P. Lerner in his *Economics of Control.* In view of the growing use of tariffs, the determination of the optimum tariff has become a thing of great practical importance. The primary aim of such a tariff is to improve the terms of trade. As has been pointed out by T. Scitovsky, there is a parallelism between tariffs and monopolistic price determination. Edgeworth, L. L. Price and Bickerdike were the first to see it, and Bickerdike applied it without indicating it. Edgeworth indicated it by showing the symmetry between the distribution of the National Dividend (a case of bi-lateral monopoly) and of gains from international trade. It was implied in Marshall's treatment of international trade also (see Scitovsky).

When we come to A. P. Lerner, this parallelism becomes clear. It is important to note that this theory of tariffs is essentially different from the theory of tariffs developed by A. Hamilton or F. List. That was perhaps the reason why Edgeworth called it "new"—See "A Reconsideration of the Theory of Tariffs" (*Review of Economic Studies,* 1942) and N. Kaldor: "A Note on Tariffs and the Terms of Trade", *Economica, N.S.* 1940. Lerner's ideas appeared in *Economica* before they were incorporated in his book.
45 *Economic Journal,* Vol. xvi, p. 529. Marshall's view is already indicated — see the discussion of his letter to *The Times.*
46 Also see Professor L. Robbins's chapters on the Classical Theory of Commercial Policy, in his book *Economists in the Twentieth Century,* 1954.
47 See Bickerdike's Review of Pigou's *Protective and Preferential Import Duties, Economic Journal,* Vol. xvii, p. 99.

48 "The Incidence of Import Duties", *Economic Journal,* June 1907.
49 *Economic Journal,* December 1907.
50 "The Incidence of Import Duties", *Economic Journal,* Vol. xvii.
51 *Economic Journal,* Vols. xvii, xviii, esp. Sept. and Dec. 1908.
52 There are quite a few references to this indebtedness in the *Economic Journal.* It appears that Edgeworth had a very high opinion of Bickerdike.
53 *Economic Journal,* December 1908.
54 Who was Charles Frederick Bickerdike?
It appears from the calendars of the University of Oxford that Bickerdike graduated from Merton College in 1899 and the *Economic Journal* records (1910, p. 505) that he went to join the University of Manchester as a Lecturer in Economics in 1910. The calendars of the University of Manchester indicate that he gave up teaching around 1912 to enter the Civil Service. Professor Hicks tells me that he often saw Bickerdike in the Political Economy Club gatherings in London in the '30s. Mrs. Hicks's presumption is that Bickerdike was then in the Ministry of Agriculture. He continued to write in the *Economic Journal* fairly regularly until the early '30s. One can at once observe the two voices of the expert and the Civil Servant in some of Bickerdike's articles. See for instance, the article "Economics and the New Agricultural Policy" in *Economic Journal,* Vol. xxvii. There are important similarities in the thoughts of Bickerdike and Keynes. Consider for instance two of Bickerdike's articles, "On Paying for War by Loans", *Economic Journal,* Vol. xxv, and "Industrial and Social Interests in Saving", *Economic Journal,* Vol. xxxiv.
The second article also bears a very strong resemblance to Harrod's writings on *Economic Dynamics,* and followed close on Cassel's writings on the subject. There is also a striking correspondence between some of Bickerdike's work and some of the recent works in international economics. Professor A. J. Brown wrote on the conditions of foreign exchange stability—as so often has been the case in economics — without knowing anything of Bickerdike's work on the same subject (see *Economic Journal,* Vol. xxx, xxxii).
In some ways Bickerdike also anticipated A. P. Lerner's work on the conditions of currency devaluation to improve the balance of payments. He also anticipated some of the recent aspects of British Agricultural Policy, (price guarantees, etc.). He thought that one way to improve the chronic balance of payments difficulties — which he expected England would face after the first world war, in his 1917 article — was to improve home agriculture and cut import requirements. He anticipated in 1917 that England might go off gold on account of balance of payments difficulties. The recent interest in Bickerdike was revived by N. Kaldor in his note on "Tariffs and the Terms of Trade", (*Economica,* 1940). Metzler has drawn attention to the striking continuity of the tradition in the theory of international trade (in his paper on the theory of international trade, in ***A Study of*** *Contemporary Economics* edited by Ellis). Our appreciation of this continuity would grow if we study some of the important

contributions in international economics in the light of Bickerdike's work.

Harold Pilvin in his article "C. F. Bickerdike on Economic Growth" in *The Canadian Journal of Economics and Political Science*, May 1954, has drawn attention to the importance of Bickerdike's article in the *Economic Journal,* September 1924, for the history of economic doctrine.

"Bickerdike," Pilvin points out, "touched upon certain aspects of the process of macro-economic growth which have been overlooked by present-day growth theorists."

C. F. Bickerdike died in 1961. See the obituary in *The Times,* 16.2.61, for some more biographical details. I had some slight suspicion when I was writing about him in 1956—1957 that he was still alive. But a number of economists I talked to about him, had no knowledge of his whereabouts nor of whether he was alive or dead. He had fallen into complete oblivion. It was when *The Times* reported his death that people came to know about him. According to the writer in *The Times,* Bickerdike has left a lot of written papers. Would some one or the Royal Economic Society get these papers looked into, and get some of them edited and printed?

I am grateful to Sir Dennis Robertson for very kindly sending me this obituary from *The Times* of the 16th February 1961.

55 A Note on the Incidence of Protective Import Duties, *Economic Journal,* Vol. xix, p. 133, see also p. 305.

56 See specially Review of H. G. Brown's *International Trade* (New York), *Economic Journal,* 1916, pp. 346—348. "Economics and New Agricultural Policy", *Economic Journal,* December 1917; "The Instability of Foreign Exchange", *Economic Journal,* March 1920.

Review of Dr. Vissering's *International Economic and Financial Problems, Economic Journal,* June 1920.

Review of Russel Rea's *The Triumph of Free Trade and Other Essays, Economic Journal,* March 1921. Review of T. E. Gregory's *Foreign Exchange Before, During and After the War, Economic Journal,* December 1921.

Review of W. E. Spalding's *Foreign Exchange,* etc., *Economic Journal* 1921, p. 521. "Internal and External Power of Currencies", *Economic Journal,* March 1922; *Individual and Social Interests in Relation to Savings, Economic Journal,* September 1924; Review of E. Giffen's *Principles of Foreign Trade, Economic Journal,* 1925, pp. 456—8.

57 For an early use of the elasticity concept by Edgeworth, see his articles on the "Pure Theory of Taxation", *Economic Journal,* Vol. vii, and his controversy with Pigou on the Corn Duty, *Economic Journal,* 1902.

58 For Edgeworth's preference for using stable money in place of barter analysis, see his review of Marshall's *Money, Credit and Commerce, Economic Journal,* June 1923, p. 198. Here he praises Bickerdike and discusses Marshall's method. The quotations are from this review.

59 For instance, consider Edgeworth's well known example of a domestic economy changing like the inside of a clock and a nation's offer curves like the hands of a clock.

60 *Memorials*—Letter to H. Cunynghame, p. 449.
61 Hicks, " Edgeworth, Marshall, and the Indeterminateness of Wages ", *Economic Journal,* June 1930.
62 See Edgeworth's comments on Pigou's treatment of Railway Rates, " Contributions to the Theory of Railway Rates ", *Economic Journal,* especially, Vol. xxiii.
63 John E. Williams: " The Theory of International Trade Reconsidered ", *Economic Journal,* June 1929.
64 G. Myrdal: *International Economy.*
Marshall indicated this assumption of the theory of international trade in *Industry and Trade,* 191, p. 4. f.n. " the notion of national trade has been bound up with the notion of solidarity between the various members of a nation ".
65 This realisation was behind the growth of " Welfare Economics ".
66 See Viner, *Studies in the Theory of International Trade,* p. 594: Schumpeter, *Economic Analysis,* p. 605.
67 For the history of Tariff Reform, see the well known histories of Clapham and Halevy, and the biography of J. Chamberlain, Vol. iv, by Julian Amery.
68 The " Great Depression " has been analysed in Beales's " The Great Depression in Industry and Trade ",*Economic History Review,* October 1934; Rostow, *British Economy in the 19th Century;* Clapham's *History of Great Britain.* For earlier discussions see some of Giffen's essays, Foxwell's writings on Bi-metallism, D. A. Wells's *Recent Economic Changes* (1889), Marshall's *Official Papers,* " The Report of the Gold and Silver Commission ", Layton and Crowther, *An Introduction to the Study of Prices.* Some of these writings also mention the findings of the Royal Commission on the " Depression of Industry and Trade."
69 H. A. L. Fisher: " The Protectionist Revival in France ", *Economic Journal,* Vol. vi, p. 341.
Also see J. G. Colmer, " An Imperial Customs Union ", *Economic Journal,* Vol. vi, p. 553.
J. W. Root, " The Fiscal Enquiry ", *Economic Journal,* Vol. xiii, p. 293. Montague's review of E. Burgis's *Perils to British Trade, Economic Journal,* Vol. vi, p. 95.
70 *Economic Journal,* " Current Topics ", 1913, p. 464. Also see Prof. A. J. Brown, " Some Trends in World Trade ", *The Journal of Textiles Industries,* 1928, for trade conditions in the '80s and '90s.
71 " Our Trade Prosperity and Outlook ", *Economic Journal,* 1900, p. 302.
72 " Imports versus Home Production ", *Economic Journal,* Vol. xv, p. 492.
73 " Our Trade Prosperity and Outlook ", *Economic Journal,* 1900.
74 " Protection for Manufacturers in New Countries ", *Economic Journal,* 1898.
75 See Marshall's views on the problem of " Industrial Growth in India " in *Official Papers,* pp. 267—326 and in some of his letters to Manohar Lall in his *Memorials.* The need for capital imports for India had been emphasised by many others.
76 " Protection in New Countries ", *Economic Journal,* 1898. Much the same views were expressed by C. H. Oldham in " Ireland and

Protection ", *Economic Journal,* March 1917.
" It may be noted that a system of protection only becomes durable when the area enclosed is so large as to be nearly self-supporting. A small country like Ireland dare not attempt to build up industry by the use of Protective Tariffs, it must be Free Trade."

77 G. Myrdal makes an interesting suggestion for co-operation among under-developed countries to permit growth of large scale production, economic production of which assumes larger home market than what a single under-developed country can offer. Such reciprocal trade liberalisation has been attempted in Latin American countries. When the technical conditions of economic production require a large home market, a regional group of under-developed countries should go ahead together, in order to accomplish for themselves the growth of industry behind a protective wall against the industrially advanced countries. It would make for industrialisation with minimum protection (but would entail co-operative planning and not co-operative discrimination). See *International Economy,* p. 258.

78 The difficulties which smaller countries have to face in industrialisation, and which Giffen stressed to indicate the limits of the infant industry argument, were also stressed by the League of Nations Publication *Industrialisation and Foreign Trade,* and by R. Nurkse in his *Capital Formation in Under-Developed Countries.*

79 " Protective Tariffs in Australia and New Zealand ", *Economic Journal,* 1899.

80 There are a large number of U.N. publications bearing on the economies producing agricultural commodities for export, and on the behaviour of their terms of trade with the manufacturing countries. Considerations of space prevent me from doing any more than indicating the bearing of such studies on the old arguments for protection. Myrdal comments on those reports and lists them in his *International Economy.*

81 The following economists signed the letter: Bastable, Bowley, Cannan, Courtney, Gonner, Marshall, Nicholson, L. R. Phelps, Pigou, C. P. Sanger, W. R. Scott, Edgeworth, W. Smart, Armitage Smith and S. J. Chapman. Those who did not sign were: H. S. Foxwell, Hewins, R. H. I. Palgrave, L. L. Price, Dr. J. Venn and G. Yule. Professor Ashley and W. Cunningham would have been in the second list and Lord Goschen and Sir Robert Giffen would have preferred to be in the first list. The letter was reprinted in the *Economic Journal,* 1903, pp. 447—448. Some light has been recently thrown on the drafting of this letter and Marshall's influence on the final draft. While the letter was being drafted Marshall was in Europe on a holiday; it had to undergo considerable modification to win Marshall's signature. The letter provoked an article from L. L. Price which will be considered later. There is reason to believe that this letter was in its turn provoked by a series of letters written to the Editor of *The Times* by W. A. S. Hewins. For Marshall's views on Tariff Reform and those letters see *The Journal of Political Economy,* June 1955; Marshall's own comment on the economists' letter and on Price's article is to be seen in the *Economic Journal,* September 1904, pp. 483—484. Marshall's clarification was that

the manifesto of the economists was not entirely a negative document. But he admitted that "to abolish protection suddenly would throw people out of employment and no free trader proposed any violent change." This makes Marshall's position identical with that of A. Smith or J. S. Nicholson.

82 Also see Pigou, *A Study in Public Finance,* 1928, pp. 195—for a brief account of Marshall's views on this point, and his own agreement with Marshall.

83 *Journal of Political Economy.* June 1955. Keynes in his obituary note on Balfour (*Economic Journal,* June 1930) tells us of Marshall's marginal notes on his copy of Balfour's *Notes on Insular Free Trade.* It appears that Marshall was quite excited with the book. Keynes shows his appreciation of Balfour.

84 Quoted by L. L. Price in his review, *Economic Journal,* Vol. xiii, p. 567.

85 "The Economic Possibilities of an Imperial Fiscal Policy", *Economic Journal,* Vol. xiii, p. 486; "Economic Theory and Fiscal Policy", xiv; "Free Trade and Protection", xii; "Some Economic Consequences of the South African War"—see also his review of Balfour's *Notes,* xiii, p. 567 and of Ferrar's *The State in Relation to Labour, Economic Journal,* 1903, p. 69.

86 *Economic Journal,* Vol. xiii, p. 372.

87 See L. L. Price's review of A. W. Flux's *Economic Principles, Economic Journal,* June 1904, and his article on "Economic Theory and Fiscal Policy", *Economic Journal,* Vol. xiv.

88 For Ashley's writings on Tariff Reform see his book *The Tariff Problem,* its reviews in *Economic Journal,* Vol. xiii, p. 571, and xiv, and his two articles, "Arguments for Preference", *Economic Journal,* 1904, and "Retrospect of the Free Trade Doctrine", *Economic Journal,* 1923. We refer to Ashley's other important writings in another context.

89 London, 1924. Hewins also wrote *An Apologia of an Imperialist.* Like Ashley and Cunningham he was interested in economic history and was for sometime the Director of the London School of Economics.

90 The sponsors of the Tariff Reform Movement appointed a private Tariff Commission including representatives of leading industries, with Hewins as Secretary, to investigate into the conditions of various British industries. Its reports were on Iron and Steel, Textiles, Agriculture, Engineering, Pottery, and Sugar and some of these were reviewed in the *Economic Journal.* It is important to see that one of the major consequences of Tariff reform was a revival of interest in the study of various individual industries. A great age of collecting industrial facts of all sorts began. The works of Ashley, W. Scott and H. W. Macrosty were especially significant in this connection. Marshall's *Industry and Trade* partly reflects this growing attention and this accumulation of factual knowledge. This growing attention probably provided the background for the development of the theory of the firm, and for the growth of Business Economics at a later date.

91 There were a number of pamphlets written by people belonging to the different sides of the Tariff Reform Movement. A large number of them were reviewed in the *Economic Journal.* Naturally their tone was very unacademic. Some of them were

J. M. Robertson, "The Tariff Swindle", (Vol. xix, p. 590), "The Collapse of Tariff Reform", "Mr. Chamberlain's Case Exposed" (Vol. xxi, p. 241); Professor Brentano, "Political Economy and Fiscal Policy", and Senator Pulsford, "The Empire Aspect of Preference" (Vol. xx, p. 405); "The Revolt of the Protectionists in Germany against their own Tariff" (Vol. xx, p. 405); Russel Rea, "Free Trade in the Being", (Vol. xix, p. 102); G. L. Tyron, "Tariff Reform", (Vol. xx, p. 247); A. Ure, "Tariff Reform as a Method of Raising Revenue" (xxi); Dr. Ottomost, "The Problem of Unemployment in Germany" (xxi), etc. A number of them were Cobden Club pamphlets. Some of them were written by Members of Parliament. These pamphlets continued to be published long after the Tariff Controversy was over.

92 William Herbert Dawson: He wrote a number of books and a series of articles (in the *Economic Journal*) on Germany. Marshall refers to some of his books in *Industry and Trade*. Some of Dawson's articles in the *Economic Journal* were, "The Genesis of the German Tariff", Vol. xiv, "The New German Tariff", Vol. xii, "Germany's Commercial Progress", xi. He also wrote on the German and Swiss system of insurance (*Econ. Jnl.*, Vol. xxii, p. 457).

93 *Economic Journal,* 1914.

94 Taussig's works are well-known. They have been considered in a collection of Essays issued in his honour. Limitation of space prevents me from considering his general contributions to the theory of International Trade. See specially *Some Aspects of the Tariff Question,* its review by Pigou, *Economic Journal,* 1915, *Free Trade, The Tariff and Reciprocity,* reviewed by Higgs, *Economic Journal,* 1920. Taussig wrote for the *Economic Journal,* "New U.S. Tariff", 1894, and "Britain's Foreign Trade Terms", *Economic Journal,* xxxv.

95 Some of these difficulties were pointed out by G. Cohn in "Free Trade and Protection", *Economic Journal,* 1904; see also H. O. Meredith: "Protection of Infant Industries", *Economic Journal,* 1906.

96 E. E. Todd, "The Case Against Tariff Reform", reviewed in *Economic Journal,* 1911, Sir Roper Lethbridge, *Indian Offer of Imperial Preference,* reviewed in *Economic Journal,* December 1913, Bonar Law, *The Fiscal Question,* Russell Rea, *Insular Free Trade, Theory and Experience.* These books are interesting and they present opposite views—they were reviewed in *Economic Journal* 1908. J. G. Colmer, "An Imperial Customs Union", *Economic Journal,* Vol. vi and J. W. Root, "The Fiscal Enquiry", *Economic Journal,* Vol. xiii.

97 S. J. Chapman and J. M. McFarlane, "Cotton Supplies", *Economic Journal,* 1907. *The Report of the Royal Commission on Supply of Food and Raw Materials in Time of War,* reviewed in *Economic Journal,* Vol. xv, p. 454. C. W. Wright, "Wool Growing and Tariff", *Economic Journal,* Vol. xx.

98 See Mr. H. H. O'Farrell: "British and German Export Trade Before the War", *Economic Journal,* June 1916. There is a book by Ross J. S. Hoffman, *Great Britain and the German Trade Rivalry,* 1933, about the impact of German competition and the hostile tariffs on British Foreign trade, which very well indicates

the nature of anxiety expressed by the popular British press on the subject of Anglo-German competition before the first world war. It also shows what was done to estimate the extent of disturbance to the British Foreign trade, and to find out on the basis of Consular Reports the main reasons for the failure of British export trade to expand. This anxiety appears to have been great indeed and the fate of free trade appeared to hang in a delicate balance. One does not get the faintest idea of this pessimism from the *Economic Journal,* however.

99 Flux, "Letter from Canada" (*Economic Journal,* March 1908). See John Davidson on Canadian Tariff, "Imperial Federation and Colonial Trade Policy", *Economic Journal,* Vol. xiii. For an opposite view see Bickerdike on the "New Australian Tariff", *Economic Journal,* March 1908.

100 See J. S. Nicholson: "The Economics of Imperialism", *Economic Journal,* June 1910. His book *A Project of the Empire,* its review in *Economic Journal,* March 1910; Nicholson's review of *Imperial Fiscal Reform* by H. P. Caillard, *Economic Journal,* March 1904. Also John Davidson in his *Imperial Federation and Fiscal Policy* (reviewed by Flux, *Economic Journal,* 1903) advocated bounties on Ocean transportation to bring the Empire together.

101 *Economic Journal,* March 1904.

102 On the experience of Customs Union see the *Journal of Political Economy* 1955/56 and *Oxford Economic Papers* February 1956 for articles relating to the European Coal & Steel Community.

103 See Prof. A. J. Brown, "International Equilibrium and National Sovereignty Under Full Employment", *International Affairs,* October 1949, pp. 434—435, for an account of the pre-1914 system of international transactions; he points out the manner in which the old automatic mechanism worked, and why it worked on the whole satisfactorily.

104 Loria and Norman Angell appear to have had some such views; see Angell's review of Loria's book, *Economic Journal,* 1913, and also see the review of Angell's *Foundations of International Polity* in *Economic Journal,* 1914.
Marshall thought that laws of business chivalry should prevail alike in domestic and foreign exchange, (see his *Fiscal Memorandum*) which would mean absence of any unfair practices in international exchange.

105 See Tinbergen, *International Economic Integration,* 1956; Meade, "The Case for Variable Exchange Rates", *Three Banks Review,* September 1955, and his recent contributions to the literature of international trade; Myrdal, *International Economy,* 1956, and "Social Aspects of European Economic Co-operation", *International Labour Review,* August 1956.

106 *Economic Journal,* 1894, 1899, 1904.

107 Among the modern studies of this nature may be mentioned, A. J. Brown: *Industrialisation and Trade: the Changing World Pattern and the Position of Britain,* 1943; and *Applied Economics,* 1947; Folke Hilgert's *Industrialisation and Foreign Trade* (League of Nations), some articles in the *Manchester School* by Professor Lewis and others; *National Power and the Structure of Foreign Trade,* 1945, by A. O. Hirschman and an article by Professor E. A. G. Robinson, *Economic Journal,* 1955.

108 *Economic Journal,* 1897, p. 274—278, See *Economic Journal,* 1920 for the application by Beveridge of Bowley's tool, "British Exports and the Barometer", etc.

109 *Economic Journal,* "Current Topics", 1897.

110 Bowley, *Economic Journal,* 1903.

111 Bowley attempted to measure changes in national prosperity and wages also. He was a pioneer in constructing a National Income and a wage series. We comment on his wage studies elsewhere.

112 I do not know who Dr. Alice Lee was. The two articles she wrote for the *Economic Journal* were: "On the Manner in which the Percentage of Employed Workmen in this Country is related to the Imports of Articles wholly or mainly Manufactured", Vol. xviii, and "On the Relation between Rates, Expenditure on Remunerative Works, and Rate of Increase of Population in Fifty-eight British Municipalities", in Vol. xiii. She expresses her indebtedness to Professor Karl Pearson and to Professor Bowley. She came very near to the methods followed by modern econometricians.

113 "Free Trade and the Labour Market", Vol. xv.

114 *Economic Journal,* September 1905, and J. H. Jones, "Trade Unions in the Tinplate Industry", *Economic Journal,* Vol. xiv, p. 299.

115 Marshall's letters were written in 1903, and have been published in an article: "Alfred Marshall and Tariff Reform, Some Unpublished Letters" written by H. W. McCready in the June 1955 number of the *Journal of Political Economy.* Also see Marshall's *Fiscal Memorandum* in his *Official Papers* for similar views. Professor Viner has discussed the views held by economists on Dumping in his book, *Dumping, a Problem in International Trade.*

Chapter V

THE LABOUR QUESTION

The Labour Question

The object of this chapter is to give an idea of how economists before the first world war looked at the problems which we now conveniently group under "industrial relations". The study of industrial relations has now spread so far beyond the limits of economics that the economist has nowadays, as K. E. Boulding observes, considerable difficulty in persuading the students of labour that his discipline has anything to contribute to their studies. "One can hardly pick up a new book on labour nowadays without finding the author jumping gleefully on what he thinks is the corpse of Demand-and-Supply, or proclaiming with trumpets, 'The Labour Market is Dead, Long Live Human Relations'." By far the most important contributions to industrial relations in the past few years, Boulding willingly and quite rightly observes, have come from outside economics. The interpretation of union behaviour in terms of power structures, considerations of prestige, relative advantages and so on has been extremely illuminating. The Mayo studies and the papers of Mary Parker Follet have revealed the immense importance of the factor of status and human significance, and of the active consent of the worker with the management, in the industrial relationships. No one should minimise the importance of this new interest in the "human relations" aspect of the wage contract. But one must always remember that the wage bargain is among other things an act of exchange; the general character of this aspect of industrial relationship in any period is determined to a very large extent by what is happening in the world of commodities; whether for instance, there is inflation or deflation in the general price level, whether the level of employment and of income is rising or falling, and is high or low and so on.[1]

A very large part of wage discussions is nowadays related to the study of wage structures and their changes. In industrial relations the interest has shifted from the study of the conditions and promotion of industrial peace to that of the conditions and the attainments of maximum productivity and efficiency, especially at the level of the firm.[2] The various schemes of co-partnership and profit-sharing which some of the neo-classical economists had disregarded as unimportant, are being tried imaginatively in many new ways to link up wages and productivity, and have been the subject of much recent analysis and research. It is, however, necessary to bear in mind that on the eve of the first world war, say from 1912 onwards, interest in such studies of the productive efficiency of the firm, the scientific management movement and the allied studies of F. Taylor for instance,[3] and of many new schemes of co-operative production and profit-sharing had already revived. Economists had begun to show a little disillusionment with looking at the industrial relations problem, or the labour question as they called it, as one of exchange between two evenly matched monopoly organisations alone, and had started to approach the problem from the standpoint of production and productivity. One can usefully think of raising productive efficiency mainly at the level of the firm, while wage bargaining is best done at the national level in the industry as a whole. This was the beginning of the new emphasis in industrial relations, which is now geared to the exploring of all possibilities of raising the productive efficiency of the firm by attempts to measure it, and by creating appropriate technological and human conditions of production. The discipline of industrial relations, if one glances at the vast output of the American writers, or those of other countries, has become dominated by the productivity and the human relations approach. The ideal at present is to look upon the firm or the unit of an industry as an organism and to make the organism the most perfect instrument for production by reducing all the disharmony that exists between its various parts. This biological or "administrative" way of looking at the problem, partly exemplified in Mary Parker Follet's papers, is different from the neo-classical way. The new outlook perhaps is more appropriate to an age of increasing competition in international markets. In the neo-classical period before the first world war, the problem of industrial relations was an aspect of the sharing out of the national dividend, which was in its turn an extension of the theory of value. It is significant to note that this change in emphasis has led to a demand for refashioning the trade union structure, which reflects the earlier preoccupation of organised labour with wage bargaining and of the nation with stopping strikes.

The other significant change observable in modern studies of labour problems is the great interest taken in the relations between trade union policies and the level of general prices and the external balance of payments situation, after the end of the domestic gold standard. With a strong labour movement, a nation cannot afford to have deflations; and this may mean that it cannot escape a secular inflation, and more so if other forces tend also to lead the economy in the same direction. For these reasons, in recent studies, the problem of linking wage increases with those in productivity, and aspects of the question of having a national wage policy have been more fully explored. There is in addition, an increased emphasis on the behaviour and importance of wage differentials, because the world has been passing through an unusual period of inflation and a very high level of employment.

The part of the chapter which follows shows that the neo-classicals did not completely understand the implications of collective bargaining and the difficulties involved in it. Subsequent studies of Clay, Beveridge, A. J. Brown and Hicks have thrown more light on them. On the other hand, the neo-classical emphasis on the wage contract as an act of exchange has continued to dominate the economist's thinking on wages (for instance, see Hicks's article).[4] But it is now more readily agreed that wages are much more than commodity prices.

We give an indication of the impact of organised labour — trade unions — on strikes in Sections I and II. Section II deals in greater detail with some of the strikes recorded in the *Economic Journal* (1891-1915). The changing nature of strikes during the years 1889-1912 led the economists to consider the question of peaceful settlement of industrial disputes. In Section III, we discuss the growth of the organisational machinery and the British preference for voluntary conciliation and arbitration, for peaceful settlement of industrial disputes. In Section IV the various aspects of the wages questions — the wage contract and low wages, in sweated trades — have been discussed. Finally in Section V, we examine some of the inductive studies of wages made during the period. These inductive studies were linked up with the growth of peaceful collective bargaining which was, as we have said, one of the main preoccupations of the writers of the period. The background of all such studies was the rise of the trade union movement in the first place, and the growing concern with the problems raised by low wages in the unorganised sections of the labour market. The neo-classical writers approved of trade unions as an institution necessary to prevent wages from falling below the competitive levels, but they did not want this result to be attained at the cost of major strikes, or to the detriment of national production and national solidarity.

I. THE CHANGING LABOUR MARKET

Between 1879 and 1890 the public as well as the academic opinion in England moved from an attitude of hostility to one of friendship towards the Trade Unions.[5] A large number of books and articles that appeared on Trade Unions during these years shows this shift of opinion very clearly. But there is also an indication in them of a fear increasing as one approaches 1890, that the Trade Unions might follow wrong principles and modes of action, and that a mere growth of Trade Unionism was no solution of the problem of low wages or of the labour question. The less committed writers — the writers other than the Webbs or Howell — were greatly concerned with the problems raised by the growing strength and aggressiveness of the Trade Union Movement. So long as the movement was limited to skilled workmen or to particular localities it was not so much of a force, for good or evil. But the movement had been changing; the unskilled workers were being unionised, and the independent and local unions were being federated.[6] Thus they had emerged with the Great Dock Strike in 1889 as a force of great magnitude. One must realise the significance of this change in the character of the Trade Union Movement to appreciate the change in the nature of strikes and consequently the urgency to stop them. This fact also accounts for the turns in the relation of the state to the labour question, and for the support given by economists to all voluntary or even compulsory processes of collective bargaining before the first world war.

Throughout this period Trade Unions had come to be generally looked upon as a pre-condition of good industrial relations and of successful collective bargaining. Economists considered them necessary in view of the special characteristics of the labour market, where the labourer, individually, was handicapped in bargaining with the employer. The Webbs, in their *Industrial Democracy*, gave an indication of academic opinion on this point around 1890. Marshall felt that competitive wages could not be established, if the unorganised labourer was left to bargain with the employer who was even by himself a large scale purchaser of labour.[7] What the trade unions were expected to do, according to Marshall, was to force the wages up to the level of the competitive wage which free market forces always tend to establish. When Trade Unions are as numerous and as isolated as the employers, or as the latter are thought to be under the conditions of a perfectly competitive market, they create no problems and society may even safely ignore industrial disputes which they indulge in. This indifference is no longer possible when employers and labourers both federate, and become better organised. For in this case they tend to behave like two large monopolies, bargaining with one another. In the first place a wage contract between them becomes indeterminate, and in the second, a trial of strength between them disturbs everything. This situation in the labour market (increasingly true of the period after 1880) is the one with which the later Marshall of the *Principles,* Edgeworth in his *Mathematical Psychics* and John Davidson in his *Bargain Theory of Wages* (1898) were concerned. The result of this development in the field of labour organisation was the growing concern with the problem of stopping strikes or lockouts.

In other words, any unqualified praise of the trade unions or of their activity was not possible once the area of conflict between capital and labour had grown, and had come to involve considerable portions of an industry or allied industries. To extend the area of strike action was, it may be pointed out, an important reason for the growth of labour federations. A most complete state of labour organisation was felt to be necessary so that reasonable discussion might occur before the question of strike action arose, and in the event of a strike, to secure the maximum of inconvenience in the minimum of time. It was also found that in order to succeed, a strike must spread over a large part of an industry or of allied industries. As Clem

Edwards put it: "So thoroughly are cognate industries interwoven and groups of trades interdependent that scarcely any dispute is entered upon by one union in which it has not to seek the aid of another union."[8] Completeness of organisation was thus forced upon the labour movement, and once these vast powers emerged, all earlier views of leaving strikes and disturbed industrial relations alone, as desirable or inevitable incidents of collective bargaining, were bound to change.

One can therefore observe a very much more cautious attitude towards trade union functions and strikes amongst the writers on these subjects in the *Economic Journal*. At no time did economists support any legal restraints on trade unions or on strikes, even when the strikes completely changed in character after 1910. In the liberal tradition trade unions have always been considered part of the democratic texture of life. But the strikes all over the industrialised part of the world, through their consequences, continued to show in the '90s and in the years before the first world war, the inter-connected nature of all industrial activity. They increasingly made it apparent that the direct cost of a strike to the parties was much smaller than the indirect cost to society. There is for that reason a growing concern amongst economists caused by the large scale strikes of the '90s and after. That also accounts for the interest they took in promoting all attempts at peaceful settlement of industrial disputes and for their desire to let the state create appropriate conditions for industrial peace. Such was the spirit of the age before the first world war that a "Welfare State" (a state with some at any rate of the features of the modern Welfare States), and the Trade Union movement were both growing steadily as cause and effect of one another, often taking on each other's functions and responsibilities. Even though the long term effects of these developments on the monetary system, on prices, on the balance of payments or on the wages system or on the economy as a whole were not very clearly understood, the age was warned by the economists against any untoward application of sectional collective wage bargaining. In an earlier period Marshall gave this advice by pointing out the possible limits of trade union action. In the subsequent period with which we are concerned, Pigou and many others cautioned against any complete authoritarian determination of wages. The idea behind both these warnings was that a particular wage rate was a price and was linked to all wage rates and with everything else in the economy and its trade relations with the outside world. Scope for alteration in wage rates there certainly was, but it was limited, and this fact was never to be forgotten.

II. STRIKES

The *Economic Journal* contains impartial narratives with comments, of a large number of remarkable strikes[9] in different countries, usually written by observers on the spot. Such contemporaneous records made by trained economists of important industrial struggles, were, said L. L. Price,[10] likely to prove of more than temporary value and to serve not only to correct many of the several public impressions but also to supply material for the thoughtful consideration in future by economists. The account of the Scottish railway strike by Mavor in the first volume of the *Economic Journal* set the pattern for all subsequent accounts. These were a regular feature of the *Economic Journal* before the first world war, and as such, they provide a unique source for the study of strikes.[11]

Most of the strikes which the *Economic Journal* records took place in transport industries and coal mining and, if they did not concern these industries immediately, they were attempts at a general strike. The *Economic Journal* contains a brief narrative of a consumers' strike in France and an account of the boycotts in the United States[12]. In addition to these there are one or two instances of disputes in cotton spinning, and iron and engineering industries, the two latter relating to other countries. The chief areas of conflict during this period, 1891-1915, all over the world, from these accounts thus appear to be transport and coal mining industries and the most common form the struggle took, was either a sectional strike in any of these industries or a general strike. It is clear that these were "major strikes",[13] not only in the sense of the magnitude of the working population involved, but in the sense of being vital to the whole economy. The difference between a successful and prolonged strike in the railways or in coal mining and an incomplete general strike, is rather small. Like the latter, a railway or a coal strike upsets and disorganises every aspect of the economy, such as its patterns of consumption, production and foreign trade. It is with the recording and with the implications of such "national strikes" that the *Economic Journal* was chiefly concerned.

In the period before the first world war, trade unions in the railways were still unrecognised. For that reason strikes in the railways were chiefly aimed at "recognition" of the unions, and only incidentally against the organisation of the railway industry. Even in coal mining, where strikes were about wages, the recognition element was not altogether absent. Most of the strikes described in the *Economic Journal* were preceded by a refusal by the employers to meet workers' representatives in a negotiating conference. Even the fights over the employment of non-union labour were an aspect of the recognition problem. Strikes, however, are ultimately about wages, that is, about the distribution of the national dividend, and a recognition strike is therefore to be understood as only the first round of an ever recurring dispute over wages. Even the fights for a reduction of hours of work at fixed wages appear to the employer as a wage claim, though there is a difference. A wage dispute is always for a fair wage for a fair day's work, but it is impossible to decide what is a fair wage and still more so to keep it fair. For, it is only with reference to a system of wage rates that any wage is fair. That is what Marshall thought of a fair wage, and even he felt that it was impossible to establish it outside a Utopia.[14] But the worker would only think of a wage as fair if it is: —

(a) a high enough wage linked with steady employment,
(b) if it compares favourably with the given level of non-wage incomes, and
(c) if it changes to his advantage, with the state of the economy and prices.

All these continue to alter in a dynamic world and the existing wage always falls out of step. This appears to be the reason for the recurrence of periods of wage disputes and strike activity which can be observed.

It is natural to expect recognition strikes during a period when the trade union movement is still incomplete as it was before the first world war. With a general recognition of trade unions by the state during the first world war, one of the chief causes of strikes has been removed. The economists writing in the *Economic Journal* realised that this recognition was an important pre-condition of a strong trade union movement and of any successful machinery for the peaceful settlement of disputes.

The general strikes, irrespective of the country where they took place, as well as most of the semi-general strikes in transport industries and in coal mining with some exceptions, as the *Economic Journal* records, always failed as strikes. Their only achievement seems to have been an increased social awareness of the labour problem, and the appearance or growth of an institutional arrangement designed to stop these national calamities in future. A political element was always present in these general strikes, especially those taking place on the continent where trade unionism was more indoctrinated. Some of the strikes in England after 1910 were alleged to have shown some syndicalist bias,[15] but they reflected rather the dissatisfaction and anger of a very much stronger Trade Union Movement reasserting itself, after some degree of trouble over several important legal decisions. It was realised by most writers that the industrial unrest after 1910 was different in kind from that of the earlier decades, and needed a more radical effort to stop it.[16]

Almost all the accounts in the *Economic Journal* refer to the damage caused to industries other than the one which was the area of struggle. They also indicate that even though incalculable, the social loss from a major strike was definitely greater than the sum of losses and gains to the parties actually in conflict. For example, James Mavor wrote as follows about the causes and the consequences of the Scottish railway strike:

"The leading cause of strike was the mere fact of growth in the dimensions of railway companies without a growth in administrative skill. Rise of upper grades of workers has rendered the dictatorial method of dealing with them, customary in the early years of the 19th century, now surviving in railway companies . . . at once absurd and dangerous.

The losses to the public are incalculable, due to

(a) enforced idleness of workers not directly involved,
(b) the diversion of trade to other industrial centres in England and abroad,
(c) the stoppage of normal facilities of travel and for conveyance.
(d) actual destruction of perishable goods and
(e) loss due to rise in prices.

The disproportion between the social loss and the direct loss to the combatants in an important strike, renders imperative the adoption of some reasonable method of settlement to take the place of strikes, during the transition through which our commercial and industrial system is passing."[17]

Mavor relates strikes to continued growth in the size of firms, and to a lack of appreciation in the management of changes in the character of the working classes, and he particularly stresses the fact that indirect losses from a major strike are greater than its direct wastefulness.

These ideas are somewhat akin to Francesco S. Nitti's proposition that strikes are generally numerous and powerful whenever a nation is going through a period of progress or of decadence — and contrariwise that the static phase even if it be a period of depression is not favourable to strikes.[18] Mavor pleaded for a general recognition of trade unions and indicated how urgent it had become to stop the recurrence of strikes in the public interest. Across the years this awareness of the organic nature of the economy and the interconnectedness of industries, such that a stoppage of work in any section disturbs all the processes in the economy, has become keener. This consciousness perhaps lay behind the subsequent growth of welfare and macro-economics. As these indirect and remote consequences of strikes came to be understood, the economists' support for the recognition of trade unions and for promotion of industrial peace by developing and strengthening the existing machinery for peaceful settlement of disputes grew stronger and stronger. They even began lending their support to proposals for a legal framework which would make breaches of industrial peace impossible in vital industries even if it involved restraints on the employers.

Take, for example, the account of the coal strike of 1902 in Pennsylvania and the articles which examine its social aspects[19] or the comments[20] on the great coal strike of 1912. Both were major strikes, long prepared for and bitterly fought, as all such strikes are. In America it led to a slowing down of consumption, stock depletion, large scale migration of labour and children to other localities and confusion in the community as a whole. "Considerations of public policy and patriotism," concludes one commentator, "ought to dictate a different policy. If these men (employers) imagine that industrial peace will be promoted by crushing the miners' union, they will be awakened from their delusion by movements which will threaten the very existence of our present industrial system and possibly result in a revolution."[21] A similar comment was made by Graham Brooks in the course of his review of the *Report of the Commission* appointed to investigate this strike: "The public has a right when controversies cause it serious loss and suffering to know all the facts and so be able to fix the responsibility. To do this it must appoint representatives to investigate into all matters when great public interest is at stake . . . not in petty difficulties or local strikes . . . ." As in the case of natural monopolies, the people had a right, it came to be felt, to interfere in those strikes which seriously disturbed the general convenience. Such strikes, the Commission argued, should be looked upon as monopolies and forced to submit to investigation and the consequent publicity.[22] The Dutch economist, N. G. Pierson,[23] reporting on some major strikes in Holland similarly distinguished between breaches of contract which involved society and those which did not, and argued for limiting the organised labour's right to strike on welfare grounds. In an unsigned comment on "Current Topics", after the coal strike in 1912, the Editor, most possibly J. M. Keynes, referred to the consequences of this strike on other industries and prices, and emphasised the intricacy and interconnection present in a modern economic organisation.[24] Keynes pointed out that a sectional strike, if it came without a warning to build up stocks, could force the community to terms, by stopping the working of the whole economic machine. "The strike has served to bring the fact into prominence," the comment ran, "that it is a very partial view to regard such struggles as one between Capital on the one hand and Labour on the other. They may be in at least as great a degree between the single section of those who provide some commodity and the rest of the community who consume it. We have to make up our minds what limitations of kind and degree ought to be placed upon the right to strike, and upon the unfettered freedom of trade unions, in those cases in which a quarrel between masters and men involves the whole community in its consequences. The difficulty which the Government found in bringing it to end, essentially lay in the fact that an immediate settlement was of so much more urgent importance to the country as a whole than to either of the parties concerned."

It is clear from these accounts that major strikes in the course of those two decades had become insufferable because of their magnitude. With the growing interdependence of industries and trade, it was thought that a major industry in a state of strike or industrial unrest was like a monopoly which was misbehaving. This was specially true of industries producing things of inelastic demand, like coal mining. Strikes had become, so the economists felt, more and more of a public nuisance which must be stopped because the direct cost to the parties was much less than their indirect cost to society.[25]

It is for this reason that most general strikes fail, and all accounts in the *Economic Journal* point out the significance of public sympathy. A strike succeeds if it is able to bring public opinion in its favour. It fails if public sympathy is absent from the beginning or if it changes sides in the course of the strike. The more general or bigger the strike, the more hostile is the public towards it. The hostility varies with the amount of inconvenience caused or expected. Equally important is another experience recorded in the *Economic Journal*, namely, that society can bear a major strike unexpectedly well and that it takes considerable time for a general strike or a major strike to make itself felt.[26] It is obvious that this capacity to bear strikes depends on the presence of stocks; the larger they are the easier it is for a community to bear these disturbances in industrial relations. Bad industrial relations and strikes are very difficult to bear, as Professor Hicks pointed out,[27] in an "empty economy" or at a time when an economy is exposed to strong competition in export markets. For the same reason an expanding phase is more vulnerable to strike action or trade union pressure than the phase of depression when stocks tend to accumulate. Industrial relations thus tend to worsen and need more care in an "empty economy" or in economies operating at full stretch. Maintenance of stocks specially of necessaries or the power to buy them readily from other countries, is the best cushion against lockouts or any abuse of trade union power which a nation can keep during periods of disturbed industrial relations. How high the level of such stocks should be, would largely depend on the length of the period for which labour could support itself without work and depend on trade union resources.

Because it is impossible to store services which the railways or tramcars, gas companies or electric companies provide (noted in order of this impossibility), or certain indispensable professional classes gives, a strike is specially dangerous in public utilities or in hospitals. And the *Economic Journal* records one such strike — the Leeds Municipal Strike of 1913[28]. Writing at the time, Arthur Greenwood said that generally speaking the odds were against the men during industrial disputes, but the odds were much greater in the case of municipal strikes. The public were the employers in this case and therefore biased. Economic issues were confused with political ideas. All these factors — the absence of a more or less independent public opinion, the unfavourable attitude of the press and political animus — were present in the Leeds strike. However, the questions raised by the strike were more general; namely the right to strike amongst employees in vital services, and the right of organised intervention by Universities during disputes in such services. There did not seem to be any clear distinction, Greenwood suggested, between municipal and ordinary trade disputes unless the municipal services gave no just ground for serious complaint and unless there was in them some form of a trustworthy machine for the speedy settlement of differences. There is little to show that in the matter of wages, at any rate, municipalities are deserving of special treatment at the hands of their employees and the vital nature of industries is a matter of degree and they are not always in municipal hands. "No industry is absolutely vital as no monopoly is absolutely perfect" — such were Arthur Greenwood's arguments, and he thought that the University had created a dangerous precedent. It is important to note how different the popular attitude was becoming towards strikes particularly in essential services before the first world war and Greenwood was protesting against some of the manifestations of these attitudes. Demand for a permanent machinery to settle all such disputes speedily, had been growing. In view of the disastrous effects of such strikes the popular feeling was even to outlaw them if they could not be prevented, as in New Zealand which by an act passed in 1914 had put an end to the larger and more dangerous class of strikes and lockouts and had set up tribunals to regulate the conditions of labour.[29]

A strike on a large scale, whether it succeeds or fails, could enormously influence the internal organisation and development of trade unionism and its relation to the state. Industrial unrest during the last few years before the war led to interesting studies of its causes and cure. Harold Cox and H. G. Wells[30] both found that the workers had started undertaking strikes for unprecedented ends. They were revolting against the economic system as such, and opposing the fundamental conditions in which they worked. "The old-fashioned strike," wrote H. G. Wells, "was a method of bargaining, clumsy and violent, but bargaining still; the new fashioned strike is far less of a haggle, far more of a display of temper . . . ."

Industrial discontent was changing into a state of deep resentment and distrust, and all the earlier methods of maintaining peace were proving inadequate.[31] The problem of industrial unrest probably had changed again. Periods of unrest in the past century recurred as in the present, with points of similarity and difference, and some incomplete attempts at investigating them were made before the first world war. Some day it will be worthwhile investigating how far new causes of industrial unrest have been produced by the post war inflation and technological changes. But one should always distinguish between relatively permanent factors and the special and immediate ones.

On the basis of statistical investigation of strikes in the later part of the 19th century, two writers, Francesco S. Nitti and Douglas Knoop came to a more or less similar theory of strikes.[32] Nitti's theory suggests that when labour is backward, strikes that occur are usually determined by local causes and are of short duration. As an economy grows and large scale industry supersedes the domestic, strikes multiply and get more intense. In countries where social life is more complex, strikes are the effects of a variety of causes, often not merely economic. In backward countries they have none but economic causes. Strikes are more frequent when an economy is undergoing an appreciable change for better or for worse. In booms strikes are for higher wages; during depressions to resist wage cuts. Agrarian strikes are rare because the strike is an advanced mode of warfare for which a peasant society is unprepared, handicapped by its own mode of life. Strikes never break out in conditions of general poverty, where combination and resistance are difficult. Agrarian strikes, if they ever break out, in the comparatively more prosperous regions, tend to become anarchic and violent. Almost all the strikes which the *Economic Journal* records were conspicuously peaceful and orderly. Nitti felt that strikes had contributed in a good measure to raising the status of the labourer and to promoting social peace. Knoop's theory is one of three successive phases of strikes. In a preliminary condition of industry strikes are small in magnitude and number, then they enter an active, violent phase and become more numerous. In the last phase they become few and far between and cease to disturb industrial peace. Knoop thought that all industrial nations would follow the same pattern. England, where strikes declined in number continuously from 1880 to 1905, was already in the third phase. He regarded the Australasian Colonies with their compulsory arbitration to be in the first and he placed Germany, the United States and France, where he found a trend for strikes to grow in number from 1880 to 1905, in the intermediate phase.[33] Knoop thought that absolute industrial peace was impossible as long as the problem of distribution remained what is was; but industrial warfare, he felt, could be substantially reduced, given a good system of voluntary conciliation and arbitration.[34] Knoop's theory was thus very optimistic and he believed that all the industrial countries were steadily moving towards industrial peace. If only they could avoid adopting compulsory arbitration and let voluntary conciliation and arbitration grow, they would reach, he argued, an era of industrial peace like England. The great economic objection against compulsory arbitration was, Knoop pointed out, that "it tended entirely to destroy the sensitive relation which should exist between demand and organisation of production."[35] It is interesting to observe in this connection that the maintenance of that sensitive relation between demand and organisation of production is the basic problem of all organised attempts to change wages or create conditions of industrial peace. In certain economies[36] where prices depend on wage costs, and if the levels of employment and public expenditure are at their full stretch, the process of inflation is speeded up even by a voluntary wage-fixing machinery which cannot assure any corresponding rise in productivity. Inflationary periods in peacetime promote unrest for a different reason, namely, because they even out all wage differentials. There is a fight over maintaining these narrowing differentials and because wage differentials, productivity and inflation are inter-related, inflation and industrial unrest or strikes might continue to develop cumulatively.

III. INSTITUTIONAL FRAMEWORK FOR INDUSTRIAL PEACE

Attempts to prevent strikes and settle all disputes peacefully began spontaneously in England. These peaceful methods of collective bargaining after a brief spell of irregular and then regular negotiations between masters and men, had taken the form of sliding scales which linked wages to the selling price of the commodity (unlike the more recent sliding scales which link wages to the cost of living index), and thus provided an automatic process of wage adjustment.[37] The sliding scales worked very well in industries like Iron and Steel where labour costs formed a comparatively small proportion of total costs, but in the case of coal mining they broke down after a brief experiment. During the period with which we are concerned, there was a general reaction against the use of sliding scales. Professor Munro had called them the greatest discovery in the distribution of wealth since Ricardo's enunciation of the Law of Rent. In 1892 the principle itself that wages should vary with profits, was disputed. Between 1888 and 1903, when S. J. Chapman[38] wrote about sliding scales, it had been repudiated everywhere in the coal trade.

The objections against sliding scales were, first, that they provided a variable wage for the wage-earner without reference to his minimum needs, and this object received strength from the fact that in England the demand for a steadier as well as a minimum wage had been growing among the coal miners.[39] Secondly, for the employer they often created an indissoluble connection between the past in profits and the future in wages. Chapman thought that even from the point of view of an employer sliding scales were a handicap, in view of the fact that expectations and anticipation of future wants were coming to play an increasing part in industrial activities. In his opinion thoughtless increase of production because profits had been high and the timid contraction of business because prices had been low, were going to be less and less a feature of commerce. Anticipated profits were playing, Chapman, argued, a progressively larger part in the natural determination of wages, and if business became much too backward looking — which sliding scales involved — it would only help to bring about cycles of trade, or alternatively, the wage-earners would lose. The operation of sliding scales had also created administrative and accounting problems. In addition, there were no indisputable premises, from which the ratio between wages and rates of profits could be deduced in different businesses. What settled the ratio was bargaining, and as Chapman asserted,[40] what settled the forces at work in bargaining was the relative strengths of master and men, which were variable. Other factors were the state of trade at the time in the past and the expected state of trade in the future. These again were variable. The aspirations of labour on the one hand and the apprehensions of masters on the other never allowed any scale of wages to be considered permanent. There followed, for these reasons, incessant revisions of scales. Thus they ceased to be automatic, and therefore lost their attraction and authority.

The sliding scales had thus come to a dead end and the problem of wage adjustment needed a new solution. Some economists wanted to readapt sliding scales to new conditions and retain their comparative automatism.[41] Some wanted to replace them by the human mechanism of conciliation which, as already mentioned, had been growing as a practice. Or perhaps, it is more correct to say that they wanted to create a representative machinery to interpret the market forces and conciliate the demands of the parties better than was being accomplished by the sliding scales alone. The economists of the period were quite clear that the two methods — sliding scales and conciliation — were not mutually exclusive ways to settle wage claims.[42]

All bi-lateral monopolies of equal strength, whenever or wherever they appear, ultimately find a solution of their exchange relationships in a judicious agreement. It is the consideration of the ethical, political and social aspects along with the economic that makes the problem of an exchange between two equally powerful monopolies determinate. This appears to have been Pigou's answer to the age, puzzled by the problem of the theoretical indeterminateness of wage rates. The idea of indeterminacy of wages was suggested by Jevons, in England at any rate, in his *Theory of Political Economy*. He expounded the idea in his *State in Relation to Labour*. Marshall and Edgeworth elaborated the idea further. Price,[43] following Jevons, thought that the solution of the problem of wages involved non-economic judgment along with certain economic considerations. But Price appears to have somewhat overemphasised the fact that economic theory was silent, and non-economic factors — "the social foundation" in Barbara Wooton's phrase — predominated in wage determination. He restated this view in a paper, *The Relation Between Industrial Conciliation and Economic Theory*[44] which he read before the British Association in 1888.

Historically, however, collective agreements between the employer and the organised workmen, had provided a new way of solving disputes whether over wages or working conditions. The subject of conciliation, which includes arbitration when the dispute turns on an interpretation or enforcement of an earlier agreement therefore received adequate theoretical and historical treatment during the period. The growing scope of peaceful collective bargaining provided fresh experience to record and generalise about.

Never, perhaps, was there greater need for close studies of social questions, and of all possible methods to promote industrial peace. "The present age," wrote Marshall, "is indeed a very critical one, full of hope but also of anxiety. Economic and social forces capable of being turned to good account were never so strong as now, but they have seldom been so uncertain in their operation. Especially is this a time of the rapid growth of the power and inclination of the working classes to use political and semi-political machinery for the regulation of industry. That may be a great good if well guided. But it may work great injury to them, as well as to the rest of the nation, if guided by unscrupulous and ambitious men or even by unselfish enthusiasts with narrow range of vision."[45] He pointed out the urgency of a scientific study of working class problems and the right method of settling wage changes was one such problem. It was studied historically, stressing the need for a permanent machinery of joint consultation and conferences of representatives of workers and employers. This machinery continued to evolve until it was given a precise and permanent shape by the Whitley Reports in 1918. A large number of writers, the chief among them L. L. Price, who had written the first book on the subject, continued to place on record in the *Economic Journal* the progress made in the peaceful settlement of industrial disputes.[46] The emphasis in Price's writings or in his reviews of books and official papers on this subject, was on the maintenance of the voluntary principle in industrial relations. Of the compulsory or semi-compulsory forms practised in the Australasian Colonies or Canada respectively, he always remained sceptical. The attempt at settling disputes and wage-fixing in those countries took a different course, because the conditions were different. There was a very searching study made by many writers of all these schemes to prevent disputes or to determine wages outside Britain, with a view to examining their applicability under English conditions. For organised trades, however, the English preference in general remained for voluntary bodies, though as we approach the period immediately before the first world war, this confidence was a little shaken. The Royal Commission on Labour in 1894 did not consider schemes of compulsory conciliation and arbitration worthy of attention. Writing around 1905, Knoop and Pigou both examined them, though only to reject them. Before the first world war there was a cautious recommendation from some people for compulsory stoppage of strikes in vital industries and wage fixation by the state for certain "sweated" industries. For these sweated industries, where conditions for an effective trade union organisation were lacking, economists gradually came to approve of "trade boards". The *Economic Journal* contains a continuous stream of writings relating to those regions of the labour market — some of these will be considered later — where wages were too low and the workers under peculiar handicaps. For instance the case of ill-paid female labour was continuously kept under examination. Other schemes studied were those of profit-sharing and co-partnership.

For the latter, Marshall had given his support.[47] Inductive enquiries into the various profit-sharing and co-partnership schemes at work, however, showed the particular conditions which the industry concerned had to satisfy to make such schemes successful, and these were very difficult conditions. There is thus disillusionment and scepticism expressed in the early years of the *Economic Journal,* for both these schemes as a solution of industrial disputes. D. F. Schloss and L. L. Price both showed that profit-sharing would and did actually add very little to wages unless productivity rose. Schloss found[48] that profit-sharing was either a partial substitute for normal wages or was a very small percentage of wages. He found that all methods of remuneration brought more or less the same amount of earnings to the worker and by favouring a system of remuneration, which he termed "progressive wages," he indicated that wages always depended on quantity and quality of the product. Like Schloss, Price also believed in the vitality of the wages system and "progressive wages". He wrote: "We must not, it would seem, expect that the general establishment of profit-sharing or of co-operative production, were it likely or possible, would inaugurate an era of undisturbed industrial peace."[49] C. R. Fay writing much later,[50] pointed out that co-partnership could only succeed in industries selling their products on a sellers' market and demanded, in addition, uncommon entrepreneurial ability. The general conclusion was that as a system of remuneration in industries, wages systems were irreplaceable and something must be found to bring about wage changes peacefully.

As a system which tried to integrate the worker with the factory or the firm, in the interests of undisturbed flow of production and in the interest of maximum production, under given technical conditions, co-partnership or profit-sharing came to receive some support a little before the first world war. In part it was due to the increasing dissatisfaction with strikes, and industrial disputes. It could also be seen as part of the increasing attention which was paid to all methods of raising productivity — summed up in the phrase scientific management — which came to interest industrialists before the first world war, especially in America. This was the beginning of the new biological or "administrative" approach to the problem of industrial relations. If in place of the claims of equity in distribution, emphasis switches on to the need of raising productivity, a policy that ends with stopping strikes or deadlocks, appears to be inadequate. What seems to be of overall importance in this case is a spirit of willing co-operation on the part of the labour force with the management, all the time; the presence of an active "consent" amongst the employees indispensable for increasing productivity. Conciliation and arbitration are preventive or curative instruments to cope with a worsening situation in industrial relations. Industrial peace is essential; but what is still more essential is a willing participation of workers with the management without discord. It is this note in the modern studies of industrial relations, which distinguishes the new from the neo-classical studies of the labour problem.[51]

We need not enter into an examination of the historical studies of industrial conciliation and arbitration. Far the best book is by Douglas Knoop, published in 1905, but there were others.[52] The English writers on this subject were, generally speaking, in favour of conciliation, by which they meant voluntary and peaceful settlement of all industrial disputes, without resorting to arbitration if possible. Like the Report[53] of the Labour Commission of 1894, there is a general preference shown in these studies of conciliation and arbitration for keeping state action limited to the promotion of a negotiating machinery, leaving all decisions about wage changes to the two parties.

English economists accepted the state to be an outside mediator only and it is clear from the accounts given in the *Economic Journal* that the state did this job very well through some of its specialised agencies like the Board of Trade. As we have shown before this attitude changed when Wage Boards were recognised in certain sections of the economy. But still, it is not incorrect to recognise the promotion of voluntary processes of collective bargaining as an extension of the state's functions, if only to prevent strikes without resorting to legalisation and to extend collective bargaining in fields where labour was unorganised or too weakly organised. For this extension of state activity which was to become an important feature of the Welfare State, there was a very pronounced support given by economists before the war.

IV. THE WAGES PROBLEM

Apart from this descriptive work, answering the questions, "what have arbitration and conciliation done and how have they done it", there were theoretical questions raised and answered. The question that would interest an economist most and the one which must be faced by a conciliation or an arbitration board is: within what limits are wage rates alterable without causing injustice to other groups or disturbing the stability and growth of the economy? The question was posed and answered by Marshall in his *Economics of Industry*. How far do (and do not) trade unions exert a real influence on the determination of wages? Which is basically the same question as how far the state can fix wage rates or an arbitrating body manipulate wages. Obviously to determine a wage authoritatively and compel its acceptance is no solution. It is essential that the "right" settlement should be reached. Marshall's answer was that wage rates were alterable but only within limits. Beyond the point of the competitive "efficiency wages" any rise in wages in a section of the labour market to be permanent must be covered by a corresponding rise in productivity or the value of the product. This "efficiency theory of wages", the tendency for the same measure of efficiency to get an equivalent remuneration, H. L. Moore found to be largely borne out by statistical investigation and this was the subject of a lively debate between Edgeworth and Moore.[54] Any attempt to disturb that equilibrium would, in Marshall's view, cause a dislocation of the supplies of labour from their ideal distribution, and consequently would tend to reduce production and wages as a whole. At the least, under conditions of an unchanging national income it would reduce the share of other groups of wage earners or of owners. In Marshall's world (with full employment and stable money), wages could rise permanently beyond initial competitive levels, only if productivity rose or if the conditions of foreign trade became more favourable. Marshall considered some of the problems of wage changes and conciliation in his introduction to L. L. Price's *Industrial Peace, Its Advantages, Methods and Difficulties*, which he wrote for the Toynbee Trustees in 1887. But this question came up in the discussions raised by the miners' demand for a living wage and by the difficulties experienced by conciliation and arbitration boards. Marshall's notion of a fair wage, which he recognised to be impossible of attainment, and which was an equal wage for equal work, changing with alterations in the value of money, was different from the notion of a minimum living wage. The latter, unlike a "natural" rate of wages, was based on considerations other than economic. J. E. C. Munro defined a living wage as "a yearly wage sufficient to maintain the worker in the highest state of efficiency and to afford him adequate leisure to discharge the duties of citizenship."[55] The extra wage required by this ideal could only be obtained by increased efficiency or out of the profits of the capitalist which is a limited resource, or by an increase in the price of the product. The effect of a minimum wage in an export industry like coal on foreign competition would depend on the advantages the country possessed over other countries. According to one writer in the *Economic Journal* "so long as the wage keeps within measure of these advantages, it may bring a new distribution of wealth but it is not likely to injure us."[56]

A more general case was considered by H. Lees Smith in his article on "Economic Theory and Proposals for a Legal Minimum Wage", (*Economic Journal,* 1907). He studied the various effects of a rise in wage rates on price, on the demand for the commodity concerned and on employment. He showed that such an attempt would raise a number of problems: "In the process of dealing with one problem we should be met by another and there might be unemployment if the demand for the commodity was elastic, because the rise in wages would raise prices. This rise in prices would hit consumers and other trades if the demand was inelastic. The theory, therefore, suggests that plans for grappling with other problems are required to complete the scheme for a legal minimum wage." Pigou, who in his *Principles and Methods of Industrial Peace* (1905) attempted to solve the ethical problem of industrial peace for the help of arbitrators came to the same conclusions: "While settling wages, which is a question other than that of a living wage, the arbitrators should seek somewhat to modify the general distribution of wealth, but should also consider the indirect effects of this policy upon the supply of capital and employing power and labour. Injury to the community as a whole should be avoided." It would be useful, he thought, to find out the normal wage in the industry satistically, and thus, facilitate its modification in view of the changes in the general wage level at the time of wage settlement.[57] Particular wages should be further modified in view of an index of oscillations in the public demand, most conveniently reflected in prices of the previous period. To allow for causes other than public demand working on prices, Pigou advised consideration of a number of things, such as profit margins, output, oscillations in labour supply. In all demarcation disputes relating to arrangement of work inside the factory, he advised the arbitrators to accept the employers' point of view; in all recognition disputes to side with the trade union, and even though preference was to be shown in employment disputes for the unionists, any demand for restricting employment only to the unionists was always to be refused.

As Pigou acknowledged in the preface, his ideas were in part derived from Marshall's *Principles* and Edgeworth's *Mathematical Psychics*. Marshall had observed in his *Economics of Industry* that indeterminateness increases with the increase of combination, and Edgeworth had pointed out that combinations tended not only to make contracts more beneficial to the unionists, but also to make them indeterminate. This was, he thought, "a circumstance of some interest, as bringing clearly into view the necessity of a principle of arbitration where combinations have entered in." The 1890s and 1900s therefore tried to explore the potentialities of such arbitration, and Pigou claimed that an economically indeterminate bargain could be arranged with reference to ethical and general considerations. There does not appear to be any substantial difference between this attitude and Professor Hicks's that "we get a better clue to actual behaviour if we think of wages as being determined by an interplay between social and economic factors instead of being based on economic factors — and crude economic factors at that, alone."[58]

Conciliation and arbitration thus found a theoretical justification in the indeterminateness of the wage contract and a system of public wage regulation grew up which reached significant proportions during the first world war. Henry Clay in the twenties (and Professor Hicks recently) drew attention to this spread of collective bargaining and other forms of public regulation (especially in the "sweated" trades) and pointed out the implications. Although there was some dissatisfaction amongst the workers as well as amongst the economists[59] with the system of collective bargaining immediately before the war, sectional collective bargaining through conciliation and arbitration, worked very well and was extended. It modified the nature and scale of industrial disputes. Naturally the implications and difficulties of the system went unnoticed. They were largely masked as Henry Clay pointed out, by the presence of an acceptable structure of wage rates and by the continued expansion of the economy.[60] Most economists writing before the war largely attributed the success of efforts to maintain industrial peace to the negotiating machinery and did not quite realise the importance of other very favourable conditions. In spite of it all sound organisational foundations of a wage policy were laid during this period and the "social" as well as "economic" foundations were kept in view. That was an important achievement, and the *Economic Journal's* contribution towards a careful termination of the policy of *laissez faire* about wages has been considerable.

We shall now very briefly indicate some other aspects of the labour question which received the attention of the writers in the *Economic Journal.* The question of the maximum number of hours, naturally, was one of them. Hours were a cause of disputes in the railways, coal mining and building industries. Economists generally preferred a shorter working day of about eight hours — which they considered to be the optimum under the given conditions. But the economic effects of variations in the hours of labour were scientifically studied in the light of inductive investigations. These combated any naive assumption linking the hours of work and output in a relationship of direct variation.[61] For instance, John Rae argued that theoretically there must be "a limit in the division of work and rest at which the maximum profitableness or what is the same thing, maximum efficiency is reached."

It would probably be different for different nations and individuals, Rae thought, but as the Australian experience showed, the limit would be "rather below than above the eight hour day" for the English race. Rae was opposed to state legislation for establishing an eight hour day — the line of action advocated by S. Webb; he wanted trade unions to achieve it by collective bargaining. Chapman held an intermediate position between Rae and Webb.[62] He attempted to show that theoretically speaking, if the employer and the workers were maximising net advantages, there would be some optimum number of hours which both would ungrudgingly accept, on the assumption that wages were equal to the worker's marginal worth. But Chapman argued that very often there was shortsightedness on either side and as a result the hours for which the labourers worked were not the optimum. In addition, often the hours conflicted or were liable to conflict with the long term interests of the community. For instance, they might be at cross purposes with the state of foreign competition or desirable standards of health or, under certain conditions, with economic growth. If people engaged in an industry were sacrificing a large future gain for a small present one, or if the employees could not successfully resist the disposition of the employers to secure a greater product at the cost of the workers' convenience, Chapman, unlike John Rae, would have advised state intervention. Chapman believed that economic matters were to be settled "not merely by self regarding forces which we have hitherto emphasised, but also by social conceptions embodied in public opinion and class notions of what is right and proper". These social forces Chapman found to be playing an increasing role in matters of policy, and even though less associated with religious elements than before, he found them none the less powerful. "Public opinion" Chapman emphasised, "will increasingly influence progress in the future and no exact limit could be laid down to the number of hours." In that age of reforms, the question of hours of work was viewed in the light of such emergent social forces along with economic considerations. An understanding of that interplay of economic and social forces which one sees at work in the arguments of neo-classical writers on all policy questions in the *Economic Journal* and elsewhere, was well displayed by Chapman in this article. This was the spirit behind the rise of the Welfare State.

Another specific aspect of the labour problem which interested the writers in the *Economic Journal* was the difference between the wages paid to men and women for equivalent work. To a very large extent this difference was found to be due to the influence of custom and public opinion — to the subjection of women, to use J. S. Mill's phrase. The only exceptions were, as S. Webb showed, the wages paid to women of exceptional ability and the wages in a "few occupations where sexual attractions enter in."[63] The reasons given for the lower wages paid to women stressed the peculiar handicaps to which women workers were subject. It was pointed out that they were entering the labour market in increasing numbers in search of employment; that they were largely unskilled; that marriage introduced an additional uncertainty in their working lives; and that the married among them were too willing to work for very low wages. In consequence, working women dragged down wages in all employments open to women. Furthermore, they were outside the pale of the trade union movement. A number of original articles and notes in the *Economic Journal* examined the conditions in almost every trade where women worked and showed that the conditions were very poor and demanded attention. Many of these articles were written by women. The remedies suggested did not include state intervention or the establishment of wage boards. Larger educational facilities to raise the efficiency of female labour and a rapid extension of trade union movement amongst women workers in order to raise their bargaining power were generally recommended. Women, it was generally held, did not compete with men in seeking employment. The field of employment for women, Webb pointed out, might widen without narrowing that for men, as had been the experience so far. During the last sixty years, more women have entered the labour force, and men have often made room for them by moving into other occupations.[64] But some of the writers in the *Economic Journal* attempted to mark out trades for which the particular nervous and emotional constitution of women fitted them. It was realised that the increasing tendency of young women to seek employment would no doubt depress the birth rate and might even distort human relationships. It would, therefore, be in the interest of the community, it was felt, to give them more leisure.

The inductive studies of the working conditions in industries where women worked, which the *Economic Journal* published, related to many trades and many countries.[65] Apart from the interest of the editor in the problem of inequality of men's and women's wages, the reason for the sustained interest taken by the *Journal* in this aspect of the labour question was the fact that working women often belonged to sweated industries where "efficiency wages" were denied. All such cases demanded some public regulation of wages. As we have indicated, economists in England were very critical of compulsory arbitration for securing industrial peace and of the wage boards of Australia and New Zealand or of industrial councils on the continent. L. L. Price, as has already been shown, provides an example. Even in the case of sweated trades and industries, for instance agriculture, where trade unionism was ineffective, conciliation out of the question and wages very low, they hesitated in recommending wage boards. Their fear was that any artificial regulation of wages would tend to grow and ultimately would result in a detailed control of industry. At least, they would argue, such has been the consequence of wage boards in Australasia. " One general truth that emerges," wrote an Australian economist, " is that state interference with the wage contract has a dangerous tendency to grow by what it feeds on. Legislation originally intended to cope with 'sweating' in Victoria (1846) has grown into a complicated system capable of controlling all industrial activities."[66] To many economists in England before 1905 this might have appeared a very apt statement of the dangers involved in state interference with the fixing of wages. But during the period after 1905, in certain cases where wages fell below a certain norm, as was the case with agricultural wages or certain classes of women's wages, economists in England began to favour a certain measure of state interference. There was a growing recognition of the fact that wage boards had been a success in Australasia, even though some people attributed the success to a combination of high tariffs and a rising market. There was, however, a feeling in some quarters that this wide exercise of power by the state was perfectly logical and inevitable, in a country or in a situation "where the industrial award is offered to the wage earner as a substitute for the right to strike. Any matter which may be the subject of a strike should be the subject of an award,"[67] if strikes were forbidden.

This was the climate of opinion in which the first attempts were made to fix minimum wages in certain industries in England before the world war. In addition, certain gaps in English factory legislation were becoming conspicuous. The first phase of factory legislation which aimed at the regulation of working conditions inside the factories and in which England had been a pioneer, was practically over in most countries and had been making considerable headway in others. But some countries on the continent had entered another phase of legislation to protect the worker against other dangers arising out of the unregulated wage contract or unsteady employment. "There was need," B. L. Hutchins pointed out in the course of an article, "to protect the labourer against the manifold dangers to industry, age, sex, ignorance and economic dependence. There was need for strengthening the present law as to the payment of wages."[68] But it may be pointed out here that English social legislation has been gradually built up bit by bit, one item often unrelated to others, to meet certain admitted evils in different trades to which special attention had been drawn. Once these evils were proved to exist beyond doubt, and the success of foreign attempts to remove them demonstrated — even if with some reservations — the English legislation was bound to extend.[69] This was a period when the legal framework of what later became the Welfare State was built. We can sum up this process as a gradual evolution of interference by the state with the purely contractual nature of the wage relationship. Considerations of status were re-entering into the wage contract which had once freed itself from them. A purely individual contract between the employer and the labourer first became a private contract between capital and labour, and then was swiftly becoming a tripartite one, between them and the state. The state had intervened — and with the general support of economists — to fix the area in which private contracts might operate. thus safeguarding the public interest.

V. STATISTICAL INVESTIGATIONS AND OFFICIAL PAPERS

The statistical ascertainment of conditions of labour and of poverty made very great progress in the few decades before the first world war. We can only indicate the nature of these inquiries here and point out only some of the many important conclusions contained in them. Some of these inquiries were done privately and what was voluntarily done in the '80s and '90s, later on became an accepted obligation of the state. This statistical work was needed to nourish public opinion in that great age of reforms; to settle industrial disputes peacefully (which required a factual account of the conditions of the trade) and to guide state policy. Thus the statistical inquiries were needed for practical purposes but they also proved to be of great value in the testing of old hypotheses in economics or in the making of new ones.

Among the most important persons who successfully conducted unbelievably vast inquiries privately, were Charles Booth, Sidney Webb and Beatrice Webb. Among the government agencies we must mention the work done by the newly added Labour Department of the Board of Trade. Expansion of the activities of the Board was one of the most remarkable things that happened during those years. Economists who made very good use of all this work and illumined stretches of wage history, adding to it their own, were A. L. Bowley, A. W. Flux and G. H. Wood.

The enquiries were concerned with: —

1. the actual level of wages and the conditions of poverty in various towns in England, often including a study of workmen's budgets,
2. rates of wages, earnings and hours of work in various trades and places in England and other countries,
3. international comparisons of wage movements,
4. wage movements in particular trades, for instance, the wages in cotton textile industry, and
5. the correlation of migration, population and wage rates.

It is interesting to note that wage index numbers were constructed during this period for the first time. They were increasingly used to compare labour conditions in various countries and together with the cost of living index became another instrument promoting peaceful wage negotiation.

The Labour Gazette was founded in May 1893 by Mundella, then the President of the Board of Trade. "It will not be concerned," it was pointed out, "with mere questions of opinion; it aims rather at providing a sound basis for the formation of opinions."[70] A large number of reports were issued over this period on the working of the various Boards of Conciliation and Arbitration. Along with the reports on strikes, lockouts and losses, they showed the growing effectiveness of these voluntary methods for industrial peace. When strikes became more menacing and demands were made to introduce compulsory systems to prevent strikes on the lines of New Zealand, Australia and Canada, reports on these compulsory systems were published. The continental systems of compulsory insurance and various other schemes for promoting employment were similarly studied. These reports thus provide a record as well as an examination of experience relating to all aspects of the labour question.

Equally important were the wage censuses conducted by the Board of Trade. To a very large extent we owe them to the initiative of Sir Robert Giffen. Board of Trade enquiries[71] of wages, hours and cost of living in various towns of the United Kingdom and the comparisons of conditions at home with such conditions abroad, occasionally led to mild debates.[72] Like all early statistical work they often came out too late and lacked order, arrangement and imagination. They reflected Giffen's optimism as well; but their significance was always acknowledged. "They provide a conspicuous base line from which to measure future changes," one reviewer commented on the wage censuses.[73] "Despite the defects, they remain," another comment ran, "a valuable contribution to the rapidly growing mass of statistical literature relating to the conditions of living among the various classes in the community, and add appreciably to the kind of facts with which the economist must test many of his theories."[74] These inquiries greatly helped the construction of new types of index numbers and led to reflections on retail prices, studies of building trades and of unemployment.[75]

Bowley's work on wages is well-known. The articles he wrote in the *Economic Journal* on the rate of increase of wages in the United States, United Kingdom and France were later republished and have been used in various contexts often contrary to Bowley's intentions. The problem of comparing actual wages in England and United States, Bowley thought was almost insuperable, but it was easier in his view to compare their rates of increase. For that reason he followed what he called the comparative or dynamic method (the method used by Jevons in constructing index numbers) rather than the static one of Charles Booth or of the Board of Trade. He defined the concept of an average wage and showed its movement by a series of index numbers computed for various countries separately, similar to that which represents the general price of commodities. He found that, "wages are continually changing at different rates just as the prices of different commodities for general as well as for specific reasons." The general causes of change in wages were, according to him, changes in the demand for labour, the stronger position and better combination of the worker and his increasing efficiency. In addition to these general forces acting on wages, there were in each industry and in each wage group, special causes in simultaneous operation.

One can observe the typically Marshallian concepts of the normal and market prices behind these statistical investigations. But the method of investigation is Jevonian. Bowley was extremely conscious of "the general roughness" of his calculation, yet his figures clearly reflected the strikingly similar changes occurring in all industrial countries, namely, the discontinuous rise in money wages and the continuous rise in real wages. He also disproved Sir William Ashley's assertion that real wages had been rising faster in Germany than in England. Here again, he was a Marshallian. In view of some of the subsequent uses of Bowley's studies by some other economists for establishing a trend of the proportion that wages have borne to the national income the following lines from Bowley are extremely interesting: "We cannot of course from such figures formulate a law of progression of wages, nor find the exact proportion they bear to national capital or national income."[76]

George F. Wood worked more or less on Bowley's lines.[77] He wrote on wages in the Cotton Textile Industry during the 19th century, and attributed the rise in wages to the growth of trade unionism and to the increasing efficiency of the worker.[78] We have already mentioned his work on women's wages. He showed that certain wages were stationary compared with others. He objected to any hasty conclusions based on Bowley's investigations of trends in average wages, in view of the difficulty of comparing statements for different years and from different sources.

According to Wood,[79] the four most usual causes of change in wages were:

(a) trade depression or a fall of prices,
(b) trade expansion or a rise of prices,
(c) new or increased organisation of workers, and
(d) industrial legislation.

The last cause, Wood thought, usually acted on wages slowly. On the basis of his statistical investigation, he came to the conclusion that, roughly speaking, the conditions which generally led to a reduction of wages recurred in each decade and therefore wages should change on an average twice in ten years. The frequency of wage changes in various industries varied, Wood pointed out, from 14.52 years in the printing trades to 0.41 years in the iron and steel trades and the average for the whole field of industry was about four years. "This is approximately the period which we should expect from the known usual length of the trade cycle."[80] This was Wood's theory of wages connecting them with the trade cycle. Wood mentioned many trades where wages had remained stationary for a longer period, on account of local influences, in spite of trade union organisation. He stressed that one should distrust all wage indexes based on earnings unless reference was made to the percentage unemployed. He pointed out that greater security against reduction of wages existed in trades producing for home consumption than in export trades; and that the producers of raw materials were much more liable to wage changes than other classes of labourers.

Another significant group of studies sought to investigate the relationship between population, mobility and wages. This period was one of great internal migration in England even though immigration and emigration were less important than they had been. Economists gave very little attention to questions of emigration in these years, with the exception of John Davidson, who incorporated an important statistical study of migration of labour and capital to North America in his book *The Bargain Theory of Wages*. A few articles in the *Economic Journal* studied the sociological problems raised by the the unassimilable migrants from Asian countries.[81] Some attention was also given to the problem of population movement from the country to the town in England. Cannan used intercensal data to study the growth of Liverpool and Manchester.[82] Flux[83] used census records on the same lines to show that people were moving in England and Wales towards the towns in search of new conditions of employment or in search of better conditions of residence. This suburban movement was very strong and there was also some movement towards "waterside places". Equally important was a study by F. W. Lawrence (who later became Lord Pethick Lawrence) of the local variations in wages. Lawrence's *Local Variation in Wages*, which was a Cambridge prize essay and was later published by the London School of Economics, was reviewed by C. P. Sanger for the *Economic Journal*.[84] The review is also important because Sanger developed certain aspects of Lawrence's statistical inquiry correlating population density and wages per hour, into something econometrical. Sanger found that there was a close correspondence between the level of wages and the size of the town — between what he called the population curve and the mean wage per hour in pence. He thought it probable that Lawrence's book would in future form the starting point for all investigations into the causes of local variations in wages.

We can see from the *Economic Journal* that statistical ular trade was not a mechanical objective law of supply and demand in the labour market, but the influence of custom, of custom which had grown up in its turn under the influence of subjective human instincts (here he differs from Hicks), striving sometimes unconsciously, but frequently in conscious and deliberate regulations, to control and counterbalance the effects of the law of supply and demand (here he agrees with Hicks). "Any theory of wages," Sudenhorst argued, "must be very incomplete that does not take into account the action of such regulations and of the prevailing policy with regard to the wages question of former ages and of the present time." In the past, Sudenhorst observed, when the principle of authoritarian regulation of wages was always recognised, the maximum wage was fixed; because the skilled industrial worker was a privileged monopolist and the purchaser of labour needed protection. At the end of the 19th century, it was the seller, the worker, who was protected. "The aim of regulation of wages is not as it was formerly," Sudenhorst claimed, "the protection of one of the two parties to the wage contract. Then it was the part played by wages as one of the expenses of production which gave importance to the regulation of wages; now it is because wages stand for income that the question of a minimum wage has entered into practical politics." The problem of the earlier legislation was, Sudenhorst supposed, purely economic, concerned with the production of wealth; the problem in 1900 was social and was concerned with the distribution of wealth. It was the work of the former, he felt, to insure that the development of trade, which was to bring prosperity to the whole community, should not be opposed by the interests of one class; of the latter, to insure that in the course of this development of trade, the labouring classes — the largest section of the community — should not be shut out from the wealth it helped and historical studies of wages or of the conditions in which the worker lived were also going on on the continent. A Germany study on the theory of wages from a historical standpoint — by Dr. O. Von Zwieaineck Sudenhorst — was reviewed by A. H. Blomefield for the *Economic Journal* (1901). Looking back from the recent position taken by Professor Hicks, Sudenhorst's views deserve mention. Sudenhorst pointed out, so says the reviewer, that the main factor determining the rate of wages in any particto create. This change of attitude he attributed to trade unionism and to the different theories of socialism.

Contemporary discussions on wage claims, in some West European countries at any rate, indicate that the problem of public regulation of wages has changed once again. The problem suggests a parallel with the earlier problem of putting some sort of ceiling on wages, at any rate we are no longer thinking of establishing minimum wages alone. Perhaps it would be more correct to describe the present concern as the synthesis of the two earlier attempts, which Sudenhorst indicated. Nowadays we think of fixing a maximum limit to the increase of wages and of profits in any year together, with reference to the annual gains in productivity and to various other national considerations; and to come to some agreement on what relation wages and profits should bear to one another, as incomes.[85]

There were many studies of workmen's budgets by economists and government agencies in England and abroad undertaken during the years 1890-1915.[86] One of these studies by Maurice Halbwachs attempted to verify the four laws of Engel. Halbwachs denied validity to two of Engel's laws. It is interesting to judge some of his ideas as found in the review by W. G. Constable,[87] in the light of some of the more recent studies of the consumption function.

"In any case the amount spent in different ways does not vary smoothly or regularly with changes in the size or income of the family. On the contrary, there are sudden variations due mainly to the influence of habit and social convention." Constable called this book the most lucid and impartial statistical analysis of budgets and an important contribution to modern economics. These observations on consumption do sound modern.

There is a comprehensive variety in the aspects of the labour question dealt with in the *Economic Journal*. We have considered some of them, conveniently grouped nowadays under the general heading "Industrial Relations", in this chapter. But there were other problems in addition to those of industrial unrest and the regulation of the wage contract. The age of the neo-classical economists was keenly aware of the existence of poverty and its association with low wages and unemployment. We consider the problems raised by poverty in the next chapter.

NOTES

1 See K. E. Boulding, " Collective Bargaining and Fiscal Policy "—*The American Economic Review,* May 1950, p. 306.

2 *Bibliography on Productivity,* O. E. E. C. Paris, April 1956, and the recent (since 1950—) volumes of the International Labour Review.

3 See *Economic Journal,* Vols. xxii and xxiii for an indication of publications on these aspects.

4 See *Economic Journal,* 1955.

5 For a complete account of this change in attitude see *Industrial Democracy* by S. and B. Webb (London, 1902) Pt. III, Ch. I. "The Verdict of the Economists", pp. 606–653. Also see Marshall and Mary Paley Marshall, *Economics of Industry* (1879), Edgeworth, *Mathematical Psychics* (1881) the Reviews of the Webbs' *History of Trade Unionism* (by Edgeworth, *Economic Journal,* 1894), and Industrial Democracy (by Price, *Economic Journal,* 1892) and of a large number of books written on Trade Unionism reviewed in the *Economic Journal,* 1890—1915, which it is difficult to list. The process began with Mill's review of W. T. Thornton's famous book in the *Fortnightly Review,* May 1869, (see Mill's *Dissertations and Discussions,* Vol. iv, London 1875). The early '70s were the years of public debate on the Unions. The Reform Act of 1867 enfranchised the town workmen; in 1868 the first Trade Union Congress was held; between 1871–1875, the laws about Trade Unions were clarified. See Court, *A Concise Economic History of Britain,* London 1954, p. 248—.

6 See Clem Edwards, " Labour Federation ", *Economic Journal,* 1893.

7 See Marshall's *Elements of the Economics of Industry,* (1892), the chapter on trade unions. The first edition appeared in 1869. The need of trade unions for collective bargaining was very well shown by S. Webb in an article in *Economic Journal,* March 1896. Webb realised that collective bargaining was no cure for strikes. They were, he thought, incidental to collective bargaining. In order to stop them, he stressed the need for referring the dispute to an impartial arbitrator, and the establishment of a legal national wage.

8 op. cit.

9 " The Scottish Railway Strike " (*Economic Journal,* 1891), " Labour Troubles in New Zealand and Australia " (1891), Carmaux Strike (France), The Broken Hill Strike (Australia), The Homestead Strike (U.S.A.), Wages disputes in Lancashire, Hull Shipping disputes, (1893), The Coal Dispute (Midlands, 1893), Strikes in Italy (1893), Report of the Chicago Strike Commission (1895), The Boot War (1895), The Railroad Strike (1894), Cotton Mills' Strike (Bombay), Disputes in Building Trades (1897), Lockout in Iron Trade (Denmark, 1897), The Dispute in Engineering Trade (1897), Strike of Bohemian Coal Mines (Austria), The Taff Vale Case (1900), The General Strike in Belgium (1902), Coal Strike of Pennsylvania (U.S.A., 1902), The Railway Strikes in Holland (1908), Brooklands Agreements in Cotton Industry after the Strike of 1893, Studies in Strikes in Belgium (*Economic Journal,* 1909). The Swedish General Strike

(1909), The French Railway Strike, The Dispute among Transport Workers (Railways), 1911, Consumers' Strike (France), The Great Coal Strike (England, 1912), The General Strike in Belgium (1918), The Leeds Municipal Strike (1914), New Zealand Strikes (1918), Dublin Disturbances (1913-1914), General Strike (South Africa 1915), Coal Strike in South Wales (1915). Dates in brackets refer to the publication of *Economic Journal* volumes containing accounts of these strikes.

10 See his review of The Scottish Railway Strikes of 1891, "A History and Criticism" by James Mavor, *Econ. Jnl.*, 1891.

11 K. G. J. C. Knowles in his book *Strikes* (Oxford, 1952) does not utilise these accounts fully, because he is not concerned with the strikes before 1911. Pigou made use of some of these accounts in his *Principles and Methods of Industrial Peace* which was published in 1905.

12 See Burnett, "The Boycott as an Element in Trade Disputes", *Economic Journal*, 1891.

13 Dr. A. E. C. Hare in his report on *Industrial Relations in New Zealand* (London 1946), distinguishes between two forms of strike — the minor strike, confined to a single work place and of short duration, and the major strike, involving many firms, or the whole industry, and usually lasting for a longer period.

14 "An absolutely fair rate of wages belongs to Utopia" — A. Marshall, in his Preface to *Industrial Peace* by L. L. Price (London, 1887).

15 "Current Topics" *Economic Journal*, 1912, pp. 346—7. See also the reviews of *Syndicalism and Labour, Notes upon Some Aspects of Social and Industrial Questions of the Day* by Sir Arthur Clay (London 1912), and of *Syndicalism: A Critical Examination* by J. R. MacDonald (1912) in *Economic Journal*, December 1912, pp. 580—588.

16 See *Labour Unrest* by Harold Cox, *The Causes of Labour Unrest and the Remedies for it, The Draft of a Report* by W. Cunningham, *The Labour Unrest* by H. G. Wells (1912), and the reviews of these books in the *Economic Journal*, September 1912, pp. 436—444 by Sidney Ball.

17 *Economic Journal*, 1891, p. 204.

18 See *Economic Journal*, Vol iii, p. 719, for Nitti's study of strikes in Italy.

19 See *Economic Journal*, 1903.

20 See *Economic Journal*, 1912.

21 *Economic Journal*, 1908.

22 *Economic Journal*, 1903 J. G. Brooks, "The Public and the Anthracite Coal Strike", p. 364.

23 "The Railway Strikes in Holland"—*Economic Journal*, 1903, p. 544.

24 *Economic Journal*, 1912, pp. 347—378. Compare Hobson on the unified organic structure of industries with elaborate interdependence of its parts and the problem of industrial peace, in his *Conditions of Industrial Peace*, London 1927.

25 One of the chief weaknesses of Professor Hicks's theory of strikes put forward in his *Theory of Wages*, is that it is "static", and uses the assumption of perfect competition, which is very often unrealistic. Further, it argues in terms of the expected

loss of the employer and of the workers. There might not be any such loss to them, or at any rate to the employer, in case of certain commodities, such as coal, which has an inelastic demand.

After the strike, the price could be raised high enough to compensate for the losses. Some such thing seemed likely and probably happened during and after the coal strike of 1912 — see *Economic Journal,* 1912, p. 346.

Pigou suggested a similar theory of strike — similar to that later put forward by Hicks and Zeuthen (in his *Monopoly*), — in the appendix to *Principles and Methods of Industrial Peace.* Also see Shove's review of Hicks's book, op. cit. in *Economic Journal,* 1933.

26 A community can very easily recover from the effects of strikes as well. Recovery appears to have become rather a rapid process in modern economies, as the post-war experience has shown. It is, of course, much easier in case of strikes. That the loss in terms of manhours not worked on account of strikes was not large, was observed by the Webbs long ago. Subsequent studies have shown that compared with the manhours usually worked in a year, the loss in terms of manhours not worked on account of strikes (or lockouts) is not significant — it is rather small. The fear of strikes has consequently diminished, and to that extent the strength of trade unions. But their importance has grown for another reason. What is more important than absence of strikes is the attitude with which labour participates with capital in production, during the manhours worked. That partly accounts for the recent emphasis on human relations, compared with the earlier one on industrial peace.

27 *The Lloyds Bank Review,* June 1947.

28 See *Economic Journal,* 1913, for comments on this strike, by Arthur Greenwood and Sir Michael Sadler. Greenwood was at that time a Lecturer in the Department of Economics at Leeds University and Sir Michael was the Vice-Chancellor.

29 See *Economic Journal,* September 1911, " Current Topics ".

30 *Economic Journal,* 1912. See the reviews of their books by Sidney Ball. Some of the other books were:—Cole, G. D. H., *The World of Labour, A Discussion of the Present and Future of Trade Unionism,* 1913. Hobhouse, L. T., *The Labour Movement* (New Ed.). Macdonald, J. R., *The Social Unrest — Its Causes and Solution,* 1913, *Syndicalism: A Critical Examination,* 1912. Brooks, J. G., *American Syndicalism,* 1914. Estey, J. A., *Revolutionary Syndicalism, An Exposition and Criticism,* 1913. Snowdon, P., *The Living Wage,* 1913. Watney & Little, *Industrial Warfare, the Aims and Claims of Capital and Labour,* 1912.

31 This phase of strike activity and of labour unrest ended with the General Strike of 1926.

32 Nitti, *Economic Journal,* Vol. iii. Knoop, D., in his book, *Industrial Conciliation and Arbitration,* 1905. See the review of this book by L. L. Price, *Economic Journal,* Vol. xv, p. 381. Knoop gives a comprehensive bibliography of the literature on conciliation and arbitration. The *Economic Journal* reviews another study on strikes by a Russian author—G. Schwithan, *Die Formen des Wirtschaftlichen Kampfer,* Berlin, 1912, p. 490;

see *Economic Journal,* March 1913, p. 123—.

33 Knoop, op. cit, pp. 182—188, p. 177.

34 Knoop, op. cit, 188, p. 177. Knoop gives interesting graphs in his book showing the strike trends in various countries; see p. 182.

35 Knoop, *Industrial Conciliation & Arbitration,* p. 96.

36 See Professor A. J. Brown, *The Great Inflation,* 1955, for a description of such an economy.

38 *Economic Journal,* 1903.

37 Price, *Industrial Peace* (1887).

39 Munro, " Some Economic Aspects of the Coal Dispute ", 1893; *Economic Journal,* Vol. iv and " The Probable Effects of An Eight Hour Day ", *Economic Journal,* Vol. i.

40 Chapman, " Some Theoretical Objections to Sliding Scales ", *Economic Journal,* 1903.

Other discussions on Sliding Scales were: H. Read, " South Wales Sliding Scales, Its Advantages ", *Economic Journal,* 1894, p. 332 and Evans, " An Iron Trade Sliding Scale ", *Economic Journal,* 1909, p. 122, South Wales coal fields were the last to give up sliding scales. Read pointed out that they ensured continuity of output but at the risk of fall in wages. Regular production was important in the South Wales coal fields because their production was meant for export. Steady supply and reasonable price were essential if exports were to be maintained. Low wages were endangering the sliding scale system, and so were endangering trade. Evans claimed that the new trade unionism and the minimum wage theory had been responsible for the destruction of mining scales. They did not find much support among iron workers.

41 L. L. Price, " Conciliation in the Cotton Trade ", *Economic Journal,* Vol. xi, and the " Report on the Rules of Voluntary Conciliation ", *Economic Journal,* Vol. xviii.

42 This view was expressed as early as 1887 by L. L. Price in his *Industrial Peace.*

43 See Price, *Industrial Peace,* p. 54.

44 For Price's Paper, op. cit., read before the British Association in 1888, see his *Economic Science and Practice,* London 1896. One should not, however, conclude that Price was prepared to give up all economic considerations in the explanation of wages, as Professor Wooton does in her book, *The Social Foundations of Wage Policy.* His view is more closely comparable with that of Professor Hicks. (See Hicks's paper on Wage Policy, read before the British Association, some sixty years later, and published in the *Economic Journal,* in 1955). Here is a passage from the earlier paper by Price for comparison, which also suggests a striking continuity of tradition in English thought on wages since Jevons:

" A treatise on Industrial Conciliation cannot be written unaided by economic theory, and yet it is none the less true to maintain that theoretical economics cannot resolve the problem involved in the determination of the exact basis of a pacific settlement." Price, op. cit., p. 194.

45 Marshall: Cambridge Curriculum, quoted by Chapman in his Preface to D. Knoop's *Industrial Conciliation and Arbitration.*

46 See *Economic Journal,* March 1908, p. 148, *Economic Journal,* June 1904 and his Review of Ashley's *Adjustment of Wages, Economic Journal,* 1903. He preferred voluntary conciliation for its elasticity of operation. He found the uniformity of legislation unsuitable and the legal approach of arbitration undesirable. He was aware of the practical difficulties of arbitration and preferred the mutual "give and take" of conciliation. His position is similar to Knoop's. For the relation of Whitley Reports to the traditional attitude to the problem of "Industrial Relations", see H. Clay—*Industrial Relations,* p. 150.

47 See *Economic Journal,* 1895, p. 309.

48 Schloss, "Increase in Industrial Remuneration under Profit Sharing", *Economic Journal,* 1891; *Report on Profit Sharing to the Parliament,* reviewed in *Economic Journal,* 1891, p. 199; "The Basis of Industrial Remuneration", *Economic Journal,* 1892; and his book *Methods of Industrial Remuneration* and its review by Price, in *Economic Journal,* 1892, p. 320.

49 See Price, "Profit Sharing and Co-operative Production", *Economic Journal,* 1892. A contrary view was held by Benjamin Jones, *Economic Journal,* December 1892.

50 See "Successful Profit Sharing", *Economic Journal,* December 1899: "Co-partnership", *Economic Journal,* December 1912; Fay's book on Co-partnership was reviewed by A. Williams in *Economic Journal,* December 1913. Also see A. Williams, *Co-partnership and Profit Sharing;* and its review in *Economic Journal,* June 1914.

51 "The greatest Industrial problem on the labour side after the war, as it seems to me, will be one not merely of equitable sharing out in the output, but of bringing the wage earner more vitally into relation through his interest and sense of responsibility with the conduct and development of production." Chapman (Ed.); *Labour and Capital, After the war,* 1918, p. 256. Also see, Lord Emmot, "The Relations of Capital and Labour". *Journal of the Royal Statistical Society, January* 1923. Lord Emmot wrote: "Whatever may be the difficulties to be encountered, if profit-sharing and Co-partnership is the only plan that safeguards efficiency and to a larger extent savings, while tending to remove all that is valid in Labour's grievances, it is surely worthy of careful consideration." Also see Mary Parker Follett's papers which have been published as *Dynamic Administration,* ed., by H. C. Metcalfe and L. Urwick, 1941.

52 Knoop, *Industrial Conciliation and Arbitration;* N. P. Gillman, *Methods of Industrial Peace; Industrial Peace and Industrial Efficiency* by Sir Christopher Furness; Henry Broadhead, *State Regulations of Labour and Labour Disputes, a Description and Criticism;* Ernest Aves (who for a number of years wrote the Labour Notes in the *Economic Journal*); "A Report on the Wage Boards of Australasia". These were reviewed by the *Economic Journal.*

53 Price, "The Report of the Labour Commission" *Economic Journal,* Vol. v, p. 444.

54 See *Economic Journal,* Vol. xvii, p. 571.

55 *Economic Journal,* Vol. iv, pp. 365, 499.

56 Munro: *Economic Journal,* Vol. iv, p. 14.

It is interesting to note that the concept of a living wage was supposed to mean a guaranteed annual wage. Perhaps it is natural to define it as such if employment is irregular. This idea appears in the *Economic Journal* more than once.

57 The Webbs stressed the need for fuller statistical knowledge about the state of industry to facilitate bargaining and insure peaceful negotiation. The Royal Commission on labour emphasised "publicity". Ashley emphasised the need of Statistical Determination of Profits (*Economic Journal,* Vol. xx, p. 530), with the same need in view.

C. P. Sanger pointed out the difficulties of indicating exactly the profits made by a firm. None of these writers, however, faced the problem that Pigou faced. The weakness of Pigou's treatment, however, was anticipated by L. L. Price in "The Relation Between Industrial Conciliation and Economic Theory" (British Assoc. 1888): The ascertainment of the "normal" wage as different from the actual wage in the past begs the question: "The actual wage is arbitrary and NOT competitive".

Economic Journal, September 1955, p. 394.

59 See Charles Booth, *Industrial Unrest and Trade Union Policy.* But though collective bargaining has had a great success in the past it has come in for a great deal of criticism in recent years. It is sometimes said that the system is breaking down and is failing to meet the needs of the industry, but the facts do not justify this pessimistic conclusion; W. Layton, *The Relations of Capital and Labour* (1913) pp. 202—3.

60 It was easier to fix wages through administrative action before the war. If there were any mistakes made in the determination of wages, the rising tide of demand subsequently corrected the mistakes. This was not possible in a period of chronic unemployment. See Clay: *The Problem of Industrial Relations* (1929). Clay wrote in the 1920s: "The Problem of Fixing Wages, is therefore far more delicate and any stakes involved in every decision heavier." It appears that, in "Industrial Relations" we have alternating periods of strikes and unemployment to deal with.

61 See Rae "The Eight Hour Day in Victoria", *Economic Journal,* 1891. Also see Munro, "The Probable Effects of an Eight Hours Day on the Production of Coal and Wages of Miners" *Economic Journal,* 1891. Webb, *The Eight Hour Day* reviewed by Rae, in *Economic Journal,* 1891; and L. Robbins, "The Economic Effects of Variations of Hours of Labour", *Economic Journal,* 1929.

62 Chapman, "Hours of Labour", *Economic Journal,* 1909.

63 See Webb. "The Alleged Differences in the Wages Paid to Men and Women for Similar Work", *Economic Journal* 1891. For another statistical study of the course of women's wages in the 19th century, see the appendix (by G. H. Wood) to *A History of Factory Legislation,* London, 1903, by Hutchins and Harrison.

64 For an account of post-war trends in the employment of women in modern economies, see *International Labour Review,* November 1956.

65 See for instance, "The Swiss House Industries", *Economic Journal,* 1896; "Working Women in Vienna", *Economic Journal,* 1897; "Women Compositors", *Economic Journal,* 1889; Report

by Miss Collet on the "Wages of Indoor Domestic Servants", *Economic Journal,* 1899; "Labour Questions of Japan," 1899; "Dustwomen", 1900; "Women in Cigar Trade", *Economic Journal,* 1900; "Women as Telegraphists", *Economic Journal,* 1901; "A Study in Women's Wages: A Confused Part of the Labour Market" by Helen Bosanquet, *Economic Journal,* 1902; "Work for Women in France", *Economic Journal,* 1903; the Review by Mary P. Marshall of Collet's book, entitled, *Educated Working Women, Economic Journal,* 1902; "The Employment of Women in Paper Mills", *Economic Journal,* 1904; "London Tailoress", *Economic Journal,* 1904; "Report of the Select Committee on Home World", *Economic Journal,* 1907; "Investigation of Home Industry by French Labour Office", *Economic Journal,* 1908; *Report on Conditions of Women and Child Wage Earners in the United States,* 19 Vols., reviewed in the *Economic Journal,* 1912; Collet, "The Professional Employment of Women", *Economic Journal,* 1915.

They contain most interesting comments also, such as: "Until women realise the importance of regarding their industry as their career and mould their character and lives accordingly, male workers would always lord over them." "Relative docility (of women) is the only reason why they are preferred by administration officers." "The women need lighter, cleaner and more dexterous employments." Edgeworth's interest in the problem of inequality of men's and women's wages has been pointed out by Keynes. See *Essays in Biography,* (1951 Ed.) p. 227.

66 See G. W. Gough, "The Wage Boards of Victoria", *Economic Journal,* 1905.

67 See G. S. Beeby, "The Artificial Regulation of wages in Australia", *Economic Journal,* 1915; also see Eggleston, "Australian Democracy and its Economic Problems" *Economic Journal,* 1915.

68 "Gaps in our Factory Legislation", *Economic Journal,* June 1908.

69 We take up the story of the progress of ideas on social legislation and employment in the next chapter.

70 See *Economic Journal,* 1898, p. 362, and J. R. Hicks, "The History of Industrial Conciliation in England", *Economica,* 1930.

71 For instance, "Report of an Enquiry by the Board of Trade into Working Class Rents, Housing and Retail Prices, together with the Standard Rate of Wages prevailing in Certain Occupations in Principal Towns of the United Kingdom" (this Report covered 77 towns); "Report to the Home Office by Ernest Aves, on the Wage Board on Industrial Conciliation and Arbitration Act of Australia and New Zealand" (1908); "Reports on Earnings and Hours in Various Trades", Vol. i–viii, 1906 (published from 1909–1913); "Studies of Agricultural Wages"; "Reports on Strikes and Lockouts, Conciliation and Arbitration Boards"; "Report on Collective Agreements" (1910); "Report on the Cost of Living of the Working Classes in the United Kingdom, Germany, France and American Towns" (1912); "Report on Proceedings under the Conciliation Act of 1896" (1913); "Enquiry into Industrial Agreements by the Industrial Council" (1913); "Report to the oBard of Trade by Sir George Askwith, on the Industrial Disputes Investigation Act of Canada, 1907" (1913);

"Memoranda on the Working of Trade Boards Acts, 1904" (1913). We refer only to the more important ones. These were reviewed in the *Economic Journal* when they appeared. The Board also published the "Report on the Cost of Production, 1907 ', published in 1913, and the " Census of Production", published in 1907. The *Economic Journal* indicates that there were similar enquiries in other countries also.

72 See *Economic Journal,* September and December, 1908.

73 *Economic Journal,* March 1911 (pp. 159—160).

74 *Economic Journal,* 1908, p. 324.

75 For example, Bowley's use of retail prices, N. B. Dearle's studies of Buildings Trades and the relation between Building and Dock Labour, and Beveridge Unemployment (1909).

76 See the following articles by A. L. Bowley in the *Economic Journal*: " Comparison of the Rates of Increase of Wages in the U.S. and in Great Britain, 1860—1891 " (Sept. 1895); " Comparison of Changes in Wages in France, the U.S. and the U.K. 1870—1891" (December 1898), " Wages and Mobility ", *Economic Journal,* Vol. xxii and his book *Wages in the U.K. in the 19th Century* (1900).

77 Another statistician, Frances Wood, in a note, " Index Numbers for the Working Class Cost of Living ", *Economic Journal,* Vol. xxiii, p. 619, pointed out the difficulties of constructing them, and thus posed the index number problem.

78 *Wages in Cotton Textile Industry,* reviewed in *Economic Journal,* 1911.

79 See *Economic Journal,* 1901, and also his note on the course of average wages between 1790—1860, Vol. ix, p. 588—.

80 See *Economic Journal,* 1901, p. 152—
The average length of years for which wages remained unchanged in various trades, Wood found to be as follows:

Printing	14.5	Shipwrights	2.64
Building	7.87	Coal	0.54
Engineering	3.78	Sailors & Firemen	2.27
Cotton	2.92	Iron & Steel	0.41

81 For instance, Samuel, " Immigration " in *Economic Journal,* 1905.

82 For Cannan see *Economic Journal,* 1900.

84 See *Economic Journal,* September 1899, pp. 421–424. Also see Lawrence's book *Local Variations in Wages* to observe the influence of Marshall on contemporary statistical studies.

85 See A. J. Brown, *The Great Inflation,* pp. 284—.

86 For instance books like *How the Worker Lives* by Rowntree and Kendall: *Round About a Pound a Week,* by P. Reeves. *Family Budgets Studies* of H. Higgs; " Budget Studies ", *Economic Journal,* 1891. We have already indicated the investigations done by the Board of Trade.

87 See the review by W. G. Constable of Maurice Halbwachs' book, *La Classe Ouvrière et le Niveau de Vie,* in *Economic Journal,* March 1914.

Chapter VI

THE ECONOMICS OF POVERTY AND WELFARE

The Economics of Poverty and Welfare

In the last chapter we have indicated the extent of statistical enquiry relating to the working and living conditions of the labouring classes. In this chapter it is proposed to make a closer study of some of these enquiries relating to poverty in order to find out the causes and remedies which they suggested, and to analyse the impact of these studies on the subsequent growth of state functions and of economic thought. Some of these poverty studies are examined in Section I. The next section deals with the impact of these studies on the prevailing views on state functions. The third section traces the evolution of British thinking on unemployment from the late '80s to 1915; it also shows that the search for the causes of unemployment and poverty resulted in the development of welfare economics — or what ultimately became the Pigovian welfare economics. The fourth and the last section analyses some of the basic features of this "old" welfare economics — which found its first formulation in Pigou's *Wealth and Welfare* in 1912 — and brings out its relation to socialist writings and to the growing awareness of the existence of imperfect competition by economists after 1890.

Some of the functions which were assigned to the state before the first world war in order to remedy the evils connected with poverty, old age and irregularity of employment are now associated with the Welfare State. The term "Welfare State" came into common use long after the first world war, and we are involved in semantic problems, as Sidney Fine points out,[1] if we call the incipient welfare state of the years before the first world war, a Welfare State. But it will be wrong not to admit that the conception of such a state (what Professor MacIver calls a General Welfare State) was emerging and the foundations of such a state were being laid. The contribution of the various poverty studies — which are examined in this chapter — to this development was extremely significant. Because the Welfare State has been chiefly concerned with problems raised by the existence of poverty and inequality, it seems not altogether unjustified to consider welfare economics — which began as an enquiry into the conditions, causes and economically sound remedies of the evils of poverty and inequality — as intimately connected with the Welfare State. Welfare economics does in fact provide a background against which the evolution of the Welfare State should be studied; it also indicates the extent to which the activities of this state should be carried.

In the '90s, it was generally believed that poverty was due to the personal and moral faults of the poor themselves. Some economists, however, thought, and the poverty studies provided them with evidence, that poverty was primarily due to the low wages paid in most sectors of the labour market and to the fluctuations of industry. It was also found that poverty was partly due to loss of health, old age, and accidents to which a worker's life was exposed. All these factors were impersonal, and over them, it was increasingly felt, the labourer had little control. In the early years of the period, 1890-1915, economists gave a general support to the trade union movement as a remedy for low wages; in some cases as seen in the last chapter, they supported legislation to fix minimum wages. Around 1906, unemployment appeared to be the chief cause of poverty, and attempts were made to find out the causes of irregular employment, and remedies were suggested to deal with the problem of casual labour. But towards the end of this period, poverty came to be increasingly associated with involuntary unemployment, caused by industrial fluctuations originating in trade cycles.

I. POVERTY STUDIES

The problem of poverty appears to have been the main concern of the Christian and Fabian social reformers and of a large number of economists in the last quarter of the 19th century.[2] The general problem of the unemployed — of which the more limited problem of "involuntary unemployment" was a mere aspect — was studied, only as an element of the problem of poverty. For instance, looking for the proximate causes of poverty, Charles Booth found that the phenomenon of poverty was connected causally with low wages and unsteady employment. The latter in its turn was connected, Booth discovered, with the fluctuations in industry. It is important to bear in mind that he looked for the causes of poverty not in the personal faults of the poor, a view on which the Poor Law Administration since 1834 has been based. He was looking for the causes over which the poor as individuals had no control and was directing attention to the haphazard general conditions of the economy. Part of this poverty was due to the aging of the population. The aged were poor because they could get no work and could not save enough, for no fault of theirs, in their working lives, wages being low. It may be pointed out that the economic and social changes that tend to prolong life and reduce birth rates also tend to produce these problems of old age, and other countries have had or would have to face these problems which England had been facing and trying to solve at the end of the 19th century. Even though Booth had noticed instances of "secondary poverty" due to intemperance or imprudent spending, borne out by a large number of family budget studies made during the period, he attributed poverty mainly to unsteady employment or permanent unemployment due in their turn to sudden applications of new processes of production, and to inappropriate maladjustment between supply and demand in an age of large-scale production in anticipation of demand for distant markets.[3] The similarities of these views on the causation of unemployment with those of Foxwell expressed in his well-known essay on the Irregularities of Employment, is very striking.

It was not Booth's intention to investigate the causes of poverty or to suggest remedies. His object was, he tells us in his final volume, to describe or give a statistical "photograph" of London as it appeared in the last decade of the 19th century. He was, however, drawn into the discussion of causes as well as remedies. He devoted five volumes to the study of organised social and philanthropic influences including those of the local government and the police on the Life and Labour in London which he had investigated. Of the three forces that tend to raise the general level of life — individual responsibility, legislative or administrative action and contemporary public opinion — the last, he thought, was the weakest. Booth's contribution to the evolution of the "Welfare State" lies in correcting the mood of unqualified mid-Victorian optimism typified in some of Sir Robert Giffen's writings.[4] He prepared public opinion for the intervention of public authorities at points where life fell below a minimum acceptable standard. He was, in effect, arguing against any dogmatic attachment to *laissez faire* and against the existing system of deterrent relief and urging a more adequate programme of social security. This view, one may observe, had been gaining ground in England ever since Bentham and was very ably expressed by Jevons in *The State in Relation to Labour.* It remained basic to the life-long work of the Webbs. It also prepared the way for a large number of investigations and enactments including the appointment of the Royal Commission on the Poor Laws on Balfour's initiative in 1905. But Booth did not bring about this change in opinion alone; he was working with many able collaborators, and was followed by many other investigators. B. S. Rowntree by his study of York a few years later, confirmed Booth's apprehensions that the slums of the country town may be as bad as those in London, if not worse. In addition to this, he established the startling probability that from 25 to 30 per cent of the entire town population of Britain were living in poverty. He also introduced a fresh element of anxiety in the discussion by showing that a large proportion of the population was ill-nourished to the point of being inefficient. "It is impossible that it should be otherwise," Rowntree commented, "the remuneration of unskilled labour, the cost of food and the needs of the human body being what they are."[5]. Rowntree's emphasis was, it should be noted, on low wages as the main cause of the very inadequate command over goods and services by the lower classes, and of the low tone of their lives, a point of view which one can come across in Marshall's *Principles* a number of times.[6] It became one of the objectives of the state before the first world war to raise the quality of this life, and was, in a sense, also the objective which economists kept before their mind when they wrote what was to become a welfare economics.

There were other writers who probed into the causes of poverty. Chiozza Money showed that in the nation considered as a whole, poverty was due to unequal distribution. Hobson was of the same view; but he stressed, in addition, irregularity of employment as an additional or the proximate cause.[7] He pointed out that the introduction of machinery after the industrial revolution was driving

" a larger and larger proportion of labour to find employment in those industries which by their very nature furnish a less steady employment that the industries supplying staples." He also agreed with Booth that the " moral aspect in poverty is often over-rated and it is probable on the whole that English writers have attributed too much power to the labourer over the environment."[8] Booth, Hobson, Foxwell, Rowntree, Marshall and the Webbs were thus trying to present poverty as a problem of unemployment and industrial fluctuations, or of low wages and inequitable distribution; in other words, as an economic problem over which the poor as unorganised individuals had very little control. The problem, it may be observed was ceasing to be moral and personal; it was emerging as a problem of the organisation of industry and of distribution. Or perhaps it would be more correct to say that it was emerging as a number of largely independent problems; namely, those of industrial fluctuations, unemployment, low wages, bad housing, old age, sickness, large families, etc. To all those various aspects, the '90s appear to have given individual and sincere attention. But in the incipient Welfare Economics of the decade before the war, low wages and unemployment had both become aspects of a theory of the size and steadiness of national income and its distribution.

Measuring changes in poverty has continued to interest English statisticians and economists. Charles Booth[9] had, in fact, emphasised the need for comparison of poverty studies of a region with those of other regions and of subsequent years for the same regions. The *Economic Journal* records a number of town studies that were made before 1915 on the line laid down, more or less, by Charles Booth, namely, the studies of West Ham, Dundee, Oxford, Northampton, Warrington, Stanley and Reading. In their study of the last four towns, Bowley and H. R. Burnett-Hurst adopted the sampling method in place of the more expensive and time consuming census type of investigation undertaken by Booth and Rowntree.[10]

It appears that on the whole, these later inquiries of the early years of the century confirmed the conclusions of earlier inquiries. The more subsequent ones, of the 1930s and after, not only indicate the progress made in the definition and social conquest of poverty over time, but they also indicate the changing relative importance of the various causes of poverty. For instance, the pre-1915 surveys point out very well that the chief cause of poverty was not unemployment so much as old age, low wages, large families or accidents in a family life.[11] The surveys of the 1930s uniformly present a gloomy view and single out unemployment as the chief cause. The post-war survey of York emphasises sickness and old age once again, with rising prices, as the most important cause of poverty.[12] Probably it will be right to treat "the great inflation" as an independent cause of poverty for certain groups of people.

What have these attempts at exact measurement of poverty and at defining it, contributed towards the growth of the Welfare State? As has been already indicated, they made for a complete change in the prevailing attitude towards poverty. They also prepared the way for the Poor Law Commission, and for the social legislation after 1905, and for the subsequent growth of the Social Security System on this foundation. In addition, by their definition of what poverty is, and by their concept of "poverty lines", they made it possible to arrive at the amount of minimum wages or the size of the gap in individual incomes in real terms which must be filled in by various state services and aid schemes to ensure minimum standards of comfortable existence to all.[13]

It is important to realise the value of these studies for the emergence of the Welfare State, associated now-a-days with social security and with the commitment to maintain full employment, and for its successful operation. In the first place, they prepared public opinion in England to give up the old practice of leaving the care of the poor, the aged and the children of undependable parents, to philanthropy and voluntary action in an urban and industrial civilisation. Charity and compassion as motives, even though natural and admirable, are very often limited in scope and always uncertain in their operation. As the problem of poverty grows and becomes better known such help could not be left to private enterprise. It has to be organised by the state and paid out of revenue and in some cases partly by compulsory contributions.

These studies pointed out the urgency of remedial action in "the framework of prevention". The remedial action was to mitigate the evils of poverty and unemployment by various schemes of pensions, insurance and of providing work to the able-bodied poor. The preventive action, on which the more academic circles and the Webbs put great emphasis, was to bring about a rise in wages by raising the pressure of trade unionism on Wage Contracts. Towards the end of our period that policy came to involve, as we have already discussed in the last chapter, the recognition of trade unions, measures to stop strikes, the appointment of Trade Boards and in some cases minimum wage legislation. It also took the form of effecting a re-distribution of income, through taxation, from the rich to the poor. But the most important thing of all was the recognition that wages could rise permanently and in the aggregate, only if the avoidable unemployment was avoided and the National Dividend was stable and as large as it could be. We do not always realise the connection between these poverty studies and the welfare economics which Pigou constructed in his *Wealth and Welfare*. Pigou was in this book looking for the conditions which the economy should satisfy — and which he showed it did not satisfy — if the national income was to attain its maximum level, and to remain steady. In Pigou's opinion, the remedying of unemployment and low wages, the two most important causes of poverty, would always entail some state interference with the conditions of distribution as well as of production — that is of economic activity as a whole. Beveridge's remedy for unemployment was to increase the mobility of labour and thus he went some way towards Pigou's more general approach. On the other hand, Hobson's analysis stressed different factors from those emphasised by Pigou and Beveridge.

II. REMEDIES AND THE WELFARE STATE

The poverty studies undertaken in this period were reviewed in the *Economic Journal*;[14] occasionally a warning was given against any political use of these studies in view of the general roughness of their statistical basis.[15] It is perhaps correct to say the economists were, on the whole, not scared by the existing dimensions of the problems of poverty, unemployment or low wages. To a considerable extent they shared Giffen's optimism. To the discussion of the remedies for the difficulties of old age, of the children of poor or imprudent parents, of the unemployed, the sick and the disabled, they gave considerable attention. The *Economic Journal* contains a number of articles on the various schemes put forward to remedy these hardships of insecurity and poverty from time to time in England or in operation in Germany, Denmark or France.[16] The more progressive opinion which the economists shared with the Webbs, was in favour of establishing various schemes of compulsory insurance, or pensions, and to rely less on charity, philanthropy and voluntary action. The Webbs supported the general movement of opinion away from the scheme of the relief of destitution in the framework of repression, established in 1834. This movement in opinion which gave rise to the Factory Acts, the Education Acts and to the legislation about Public Health, had received fresh stimulus from certain political developments in the last quarter of the 19th century, and from the activities of politicians like Balfour and Chamberlain. Chamberlain had issued a circular to the local authorities asking them to provide work to the able-bodied unemployed who were thrown out of work for no fault of their own.[17] On the other hand there were people like C. S. Loch, who viewed these extensions of state action or state expenditure as disconcerting trends. If relief was made more general, they would say that the moral fibre of the labouring classes would deteriorate, and therefore no change in the Poor Law Administration was called for. The fears of an incipient Welfare State were very ably expressed by C. S. Loch, who was the Secretary of the Charity Organisation Society and whom Marshall had described[18] as belonging to the stern school of Poor Law Reformers: "If gigantic taxation is the cause of the ruin of states, the taxation thus imposed on the nation to finance a system of old age pensions would soon be disastrous."[19]

What Loch failed to see was the possibility of heavier taxation and a larger public expenditure in view of the rise in the national income, towards the close of the 19th century. The public authorities could afford to spend more, because they consumed a smaller precentage of the national dividend than they did in the early years of the century. This point was stressed by Marshall in his reply to Loch and to others who opposed any increase of expenditure on poor relief. Marshall shared the view that a change was called for in the poor law administration. He pointed out that circumstances had certainly changed; the national dividend had grown four times since 1834, while the expenditure on poor relief was more or less at the old level. In addition, with better officers in the government and with increased knowledge of the "causes which govern wages", and with a more responsible labour leadership, "a more humane approach to the problem of poverty was practicable and desirable in the present circumstances of the working classes."[20] The size of the national dividend, as we shall see later, was a concept of great practical importance in Marshall's thought,[21] or shall we say in neo-classical thought. On its magnitude, it seems, depended what could be done to remedy poverty or inequality and also what should not be done. The norm which all these economists, Marshall, Edgeworth, Pigou, Bickerdike and others, kept before their mind, was to consider every scheme of reform—legislation or taxation—in its bearing on the magnitude of the national dividend, in the future.[22] A change of policy which did not interfere with its size or its steadiness in the future, viewed as a long-term proposition, was considered welcome. Any change in policy — or trade union action — which reduced its size or tended to reduce its size or tended to increase its variability, was considered to be wrong.

State pensions continued to be a fruitful subject of debate in the pages of the *Economic Journal*, but statistical investigations had also shown the appalling conditions in which the children of the poor lived. Poverty was always bad, but it was felt in that age, conspicuously interested in child welfare, that it was harder still when poverty gripped people while they were still young. In addition to that, it was impossible to attribute the difficulties of the children to their own faults. Schemes were thus put forward for boarding out pauper children, and for feeding them at school without discrimination. The implications of all these proposals were discussed in the *Economic Journal*.[23] There was a general reaction against the traditional ideas of charity as a consequence of increased awareness of the lines of German policy. Any such progressive activity on the part of public authorities, mainly local government, which was, in contrast to our own times, the chief engine of the growing Welfare State in those years, found the general support of academic economists. The conditions of state relief in Germany and other countries of Europe were studied. The industrialisation of the latter was subsequent to that of England, and to a much less extent accompanied by excessive regard for the natural justice of efficiency of *laissez faire* and self-help. The poor law systems that had emerged in those countries to mitigate poverty were, for that reason, less individualistic, wider in scope and more humane. One can often see that an extension of state activity in England has followed a similar growth abroad, especially in Germany, except in the case of factory legislation.[24] This was at no time more conspicuous than during the decade before the first world war.

Writing on the conditions of state relief in Denmark, a contributor to the *Economic Journal* urged: "Framers of the Dutch Poor Law have shown little of that dread of the evil influence of a lenient administration of relief upon the wage earning classes, which has been a tradition with the bulk of our leading poor law officials ever since 1832. No such scruples have deterred the Danes from introducing into their system many of the modifications or alleviations now being agitated for among ourselves. The method upon which state relief has been administered does not appear to have hitherto discouraged efforts towards self-improvement among the Danish working classes."[25] This statement shows the way people were making use of the continental experience of state relief to advocate similar changes in the English system of Poor Law Administration. But the contrary view was also held by a few, namely, to let the "industrial residuum" die out and not to make parasites of these poverty stricken people by maintaining them at public expense.[26]

The Royal Commission on Old Age Pauperism which reported in 1895, took a conservative line. Nevertheless it reflected the indecision in the English mind. There was a general mental disquiet, it seems, over the issue, whether poverty, unemployment or low wages, were inevitable or whether they were avoidable consequences of an unmanaged economic system. "If all but exceptional cases are the result of improvidence or vice the remedy is," Peter Green wrote in the *Economic Journal,* "increased stringency of administration, for the exceptional cases may safely be left to charity. If on the other hand, the reasons are to be sought in economic changes which cannot be fought against, and it is really more desirable to use only those workers who work with maximum efficiency, then old age pensions raised by taxation without direct contribution seem a necessary consequence."[27] Pigou, who in his *Wealth and Welfare* was concerned with the theoretical and practical aspects of increasing economic welfare, and, it seems, wrote with the problem of poverty at the back of his mind, preferred to look upon these consequences as largely avoidable by a limited amount of state action aimed at improving the organisational and institutional framework of the economy.

Increasing interest was shown in the compulsory schemes. The superiority of state supervised, compulsory (that is general) insurance over purely voluntary insurance was increasingly recognised. It was found that certain types of compulsory insurance were helpful in maintaining industrial peace; it was increasingly felt to be the direction in which other industrial countries were going; and such schemes of insurance were also considered to be indispensable to make life more secure. This conclusion, however, was reached on empirical grounds and after a good deal of hesitation. "Incompetence of some kind," wrote F. C. Montague in the course of a review, "is the cause of extreme poverty. Yet (the poor) do not die out, and cannot be exterminated."[28] What could be done? Should they be maintained on "transfers"? What should be done for the "industrial residuum", a class without regular employment and a fixed standard of living? Poverty had emerged, it seemed, as far larger a problem to be left in the hands of the restrictive Poor Law and voluntary charity; and the contemporary generation of men and women were full of feeling, anxiety and earnestness. The healing of social ills could not be effected, it was felt, by repressing the excesses of labourers alone. It required — and there was, it seems, an increasing agreement for this view — positive action on the part of the state to promote the welfare of the working classes.[29] Poverty was not due to personal factors alone, to a much larger extent it was found to be due to impersonal factors. It was due either to low wages or unemployment, to insurable risks or to accidents. This view animates the reports of the Poor Law Commission, the report of the majority as well as that of the minority.[30] It was behind the Unemployed Workmen Act of 1905 and the creation of the National Insurance System in 1911. After the publication of these reports and on account of the ceaseless activity of the Webbs and the support of the economists. this view found its ultimate embodiment in

Lord Beveridge's report in 1942 and in the consequent adoption of the institution of all-in social security.[31]

It was, however, realised that insurance, pensions, feeding of children or intermittent remedial provision of work were not the complete nor the final answer to the problem of poverty. We have already seen how poverty was looked upon as the end result of a number of conditions and causes. The economists very well realised that insurance systems would hardly touch the casual labourer, the unemployed, the vicious or the destitute who constitute the main body of the very poor.[32] It was therefore the understanding of the causes of low wages and unemployment to which they turned. Why is the economy characterised with low wages or continuous or recurrent phases of unemployment? It was necessary to prevent them if poverty was to be abolished altogether. It seems to me that this was the main preoccupation not only of the Webbs, but of many other economists who contributed to the development of Welfare Economics. While looking for the causes of very low wages, as we have seen, they found an answer in the strong trade union movement, collective bargaining, a wage negotiating machinery, and in certain unavoidable cases, in minimum wage legislation. They also looked for the causes of fluctuations in employment and suggested remedies in the light of the type of unemployment with which they were most familiar. The chief importance of the Minority Report of the Poor Law Commission and of some of the later work of the Webbs lies in the emphasis they placed on the preventive aspect of positive action and the earnestness with which they explored the causes of unemployment.[33] But along with the contribution of the Webbs, we should examine what other economists did, and also the relation between these various theories of unemployment and the Welfare Economics that grew up against this background. Pigou's welfare economics, it is not sufficiently realised, was developed in the course of this general quest for the causes of poverty and unemployment, and may well be viewed as a stepping stone as well as the counterpart of Keynes's theory of employment. The ideas of both Pigou and Keynes, may be discerned, at least in incipient form, in the writings of J. S. Mill and Marshall.

III. UNEMPLOYMENT

We have seen that the problem of unemployment, rather the problem of the unemployed because the word "unemployment" came into common use[34] only in the late nineties, was treated as an aspect of the problem of poverty. In the writings of Foxwell, Booth and Hobson, however, unemployment was emerging as an independent problem separate from the problems of the voluntarily unemployed or the unemployable, as something connected with the nature of the capitalistic economy. But except for Hobson, the general attitude until about 1905 when the Royal Commission on the Poor Laws and on the Relief of Distress from Unemployment was appointed, was to look upon the unemployed as individual men or groups of men unemployed for a number of reasons. The remedies correspondingly were to be as manifold as the cause. One can find this attempt to break down the unemployed into a number of classes according to the specific cause of their unemployment and to define and limit the class really eligible to receive unemployment insurance or work, in the reports or writings that appeared before 1905.

In some cases or to some extent the practice continued even beyond 1905.[35] This was perhaps inevitable in any remedial approach to the problem, noticeable in the Reports[36] meant to advise the governments on the immediate tasks of Relief Organisation. The first important task for them was to define the term "unemployed" which they found "often used very vaguely". It was used, a committee observed, to indicate those who were "temporarily out of work between two jobs", sometimes to indicate "the whole class of casual labourers who never have sufficient or steady employment" or for those who were out of work through regular seasonal fluctuations.[37] From this ambiguous meaning of the word, they thought, two methods for dealing with the question had resulted; one attempting to permanently remove the unemployed from the labour market and the other to assist them to tide over their difficulties till trade revived; while mixed with both plans was the idea of reclaiming by moral or other influences the "residuum" which lies still lower and is unemployed because it is worthless.

The literature on unemployment had been increasing steadily since the '80s and there was perhaps a new feeling springing inevitably from a more broadly based democracy of those years, and the spread of socialistic ideas, behind the urgency with which the solution of "the unemployed problem" was sought in the later '90s.

It was no longer an answer to say, a committee remarked, "that conditions are not worse than they have often been in the past" (as Marshall would often say). This committee also recognised that a different approach would be necessary if unemployment was considered to be more than a passing event and if so it would be impossible to meet the difficulty by the haphazard expedients of voluntary committees or by the ordinary charity methods. Unemployment was appearing before the people as a chronic problem and a select committee on the unemployed was appointed in 1895 mainly at the instance of Keir Hardie to consider the extent to which distress from want of employment prevailed and to examine if the powers of public authorities and their conventional methods to deal with the evil were adequate. The reports of this committee contain: C. Booth's definition of the unemployed,[39] the diagnosis of the causes of unemployment by Booth and H. Llewellyn Smith and their empirical conclusion about an irreducible minimum of unemployment because of the Trade Union policy of keeping up wages even at the cost of paying unemployment benefits to some of their members. From the point of view of the individual, they felt, the most serious cause of unemployment was the change of production processes, while from the point of view of the nation the most serious causes were the fluctuations that affect the general condition of trade. The tendency to define the really unemployed and to limit the giving of relief or work to "the genuine workmen usually in regular employment" can be seen in the report of this committee as well as in The Unemployed Workmen Bill introduced in 1905.[40]

We have perhaps made it sufficiently clear that the trend of official or popular opinion until 1905 or thereabouts was to consider the "problem of the unemployed fellow"—that was how they described it — as a number of separate problems each dealing with the various groups in which the unemployed were allocated. This view might have rested on the economists' as yet not fully formed opinion of considering involuntary unemployment as a temporary and frictional problem; but it is more correct to consider it as a non-theoretical, practical man's view. Against this fragmentary view as early as 1896, Hobson had revolted.

"The tendency thus to fritter away the unity of a great subject into a number of component parts," he observed, "is a grave intellectual danger which induces a paralysis of all work of practical reform."[41] His object therefore was to show that "the unemployed question had a true unity." Hobson presented unemployment as an aspect of trade depression, or "stagnation" perhaps is the right word, which was due to under-consumption. Under-consumption was inevitable according to Hobson, because "effective demand failed to keep pace with the power of production". The ultimate reason was over-saving, resulting from the maldistribution of consuming power. In other words, Hobson traced unemployment to the existing patterns of distribution. The relation between the thoughts of Malthus on unemployment, and those of the socialists, utopian and scientific, Hobson and H. F. Mummary,[42] and Keynes, and their difference from the Ricardian tradition, has been stressed in the *General Theory* and is well-known, and it would be useless to discuss that aspect here. Hobson, it may be indicated, however, was quite conscious of his obligation to Malthus and of the conflicts between the individual and social interests in saving. Cannan in his review of Hobson's book agreed with Hobson to some extent by saying that over-saving was not impossible in a nation. Even Marshall would have agreed that it was quite probable during periods of disturbed confidence. As a matter of fact some articles appeared in the *Economic Journal* after 1896 showing that over-saving of some sort was going on in England and that difficulties in finding suitable opportunities for investment were being experienced[43]. But it seems more correct to say — as Hobson said and Keynes approved — that according to Marshall over-saving was unlikely apart from periods of crisis and disturbed confidence. Sir Dennis Robertson has pointed out that Marshall had rejected Say's law in the simple sentence: "But though men have the power to purchase they may not choose to use it."[44] One cannot suppose that Marshall, who had lived through the '70s and '80s, would have been unaware of the fact that investment could lag behind savings. But the trend of Marshall's thought shows that this would in his judgment only happen in an abnormal situation, and would not follow from inequality of distribution under capitalism as a matter of course as Hobson thought.

From 1905 to about 1912 unemployment came to be increasingly regarded as a problem of the economy or of industry as Beveridge put it in 1909. In its third stage of evolution which is marked by the publication of Pigou's *Wealth and Welfare* in 1912, the classical theory of unemployment which had been partly developed by Sanger, Beveridge and others from 1905—1912, received a more generalised statement. From 1912 to 1936 these theories were continually examined and questioned until the Hobsonian line of thought which rested on the rejection of Say's Law, gained supremacy by the powerful logic of Keynes and by the equally, if not more powerful logic of the circumstances. But signs of disbelief in the view that unemployment was caused by over high wage rates, kept at these unnatural levels by Trade Union pressure, were visible before the first world war. In the few years before the war "non-monetary" causes of unemployment were increasingly sought on the lines on which Jevons in an earlier epoch tried to understand the phenomenon of trade fluctuations. These attempts in England were made mainly by D. H. Robertson and Bickerdike.

C. P. Sanger did not write any articles on the specific subject of unemployment. But in a study of the evolution of thought, one has to credit him with certain ideas, which he expressed before all others in the course of an article and a review of a German book on unemployment in the *Economic Journal*.[45] In the article he pleaded for the regulation of the number of apprentices in a trade with reference to the broad changes in population and the future needs of various trades. He thought that the best allocation of the supplies of labour over time was not attained by the unregulated behaviour of the labour market. It would be unwise, he thought, to leave this adjustment of the supplies of labour to the changing demands of labour, in the hands of the trade unions and the employers, who want either to understock or overstock the labour market; and it was possible to think of certain limits to which entry would be desirable in everybody's interest in a trade. Adjustment of supplies of labour to the various existing needs of the economy was generally suggested as a remedy for unemployment in the early years of the 20th century. Henry Clay gave considerable attention to this problem of maladjustment in the twenties. It is receiving attention once again at present in a period of full employment and technological changes.

The development of Sanger's line of thought, which was in origin Marshallian, can be observed in certain statistical estimates of the current employment requirements of different trades made a few years later by Bowley in the hopes of facilitating the movement of labour from the declining to the flourishing trades.[46] But Bowley like Beveridge was primarily interested in a short term policy and in increasing labour mobility over space, while Sanger was mainly thinking of regulating the condition of industrial training of new generations of labour with reference to the long term prospects of employment. This line of thought, however, occurs in Beveridge's *Unemployment* and it also drew the attention of N. B. Dearle and Tawney.[47] It led to an examination of the conditions of apprenticeship, boy labour, and of blind alley jobs, etc. Sanger developed also the short-term argument in the course of a review, when he raised the question: "It may be that at the same time (when people are out of work) there is a demand for some particular kind of work which these unemployed are unaware of. How can the employers and employed be put into communication? If on the other hand there is no demand for this particular skilled work, how far is it possible for the skilled worker to have another trade?"[48] He refers to other aspects of the unemployed problem also and calls them "the most pressing problems of our industrial organisation." By way of remedies, he added; "They immediately call to our minds many familiar terms: Labour Bureaus, Trade Unions, Workmen's Compensation, Compulsory Insurance, Old Age Pensions, Apprenticeship and so forth."

There was thus little that was strictly new in Beveridge's book, *Unemployment,* when it appeared in 1909. But somehow whatever had appeared on unemployment before Beveridge appears fragmentary and Beveridge's book was really the first that dealt on systematic and comprehensive lines, and from the point of view of economic theory, with the congeries of problems that go to make up the question of unemployment.[49]

The importance of Beveridge's contribution, however, does not lie only in his suggestion of establishing a network of labour exchanges or other agencies to promote labour mobility or more appropriate industrial training, which had come into operation on the continent and on which there had been general discussion in England. As a matter of fact Beveridge over-stated the case for labour exchanges and provoked Macgregor to point out the limited value of these institutions.[50] This book by Beveridge is important because it marks an important step in the clarification of the classical theory of unemployment (or the Ricardian theory of employment, if that is the expression). Beveridge's object was to "combine a record of the principal facts of unemployment with a continuous argument as to the causes of unemployment."[51] He was conscious of the incompleteness of his analysis of the causes because the problem of the underlying causes of cyclical fluctuations in trade and unemployment was still unsolved. Yet he was extremely optimistic about his policy of labour exchanges and plastic wages and was perfectly certain that the problem of unemployment represented not an immeasurable and irredeemable failure of the existing social system but incompleteness of organisation at certain points. The problem was one of adjustment of the supply of labour and the demand for labour. There was nothing in the existing industrial order, Beveridge argued, to secure this miraculously perfect adjustment. He rejected the Malthusian theory, that unemployment was due to over-population or to the failure of Say's Law. As he put it, there was no failure of adjustment between the (overall) growth of the demand for labour and the growth of the supply of labour, because wages had been rising and the rate of population growth had already diminished. There were temporary fluctuations in this overall relationship, Beveridge pointed out, because of industrial fluctuations originating in foreign trade fluctuations, or in the supplies of precious metals or on account of the misdirection of productive energy which often caused the demand for labour to grow discontinuously. But what was really wrong in his judgment was the fragmentation of the labour market into an infinite number of small ones each with its own idle pool of labour. This was, he pointed out, a fact in contradiction to the assumptions of economic theory and his object was to make reality approximate to the conditions presumed to obtain in theory, by establishing a network of labour exchanges, more or less after the German models. They were designed to improve the mobility of labour by decasualising the labour market. One can also see traces of the old habit of enumerating the other aspects of the problem of the unemployed, with their remedies, in Beveridge's book. But his real contribution lies in emphasising the imperfections with which labour moved between jobs.

The inadequacy of the remedies put forward by Beveridge was pointed out by Macgregor.[52] He insisted that labour exchanges could not create additional employment opportunities and for that purpose various public works or emigration schemes would be needed. He feared that labour exchanges by a successful decasualisation would only aggravate unemployment. The Webbs, it may be pointed out, were equally conscious of this inadequacy of a policy of labour exchanges, and the emphasis placed by the Minority Report of the Poor Law Commission on a policy of public works is well-known The industrial training aspect of the casual labour problem was also discussed in the *Economic Journal,* and various schemes were put forward to stop the inflow of labour into the casual labour market at the source.

It appears likely that some of these writers on unemployment like Beveridge or N. B. Dearle[53] were particularly impressed by their experience of unemployment in the London docks or in the London building trades which were especially depressed in the early years of this century. To a considerable extent their theory of unemployment, which over-emphasised the misapplication or the sluggish movement of labour supplies, was a generalisation from their experience of London unemployment. Beveridge himself has pointed out the divergent movements in the unemployment percentage in London and in the rest of the country,[54] and I wonder if the unemployment theories put forward from time to time reflect the corresponding unemployment situation.

Pigou's *Wealth and Welfare* (1912), which was his first work on welfare economics, came out of his search for the causes of unemployment.[55] "Several years ago," he wrote in the preface, "I began to study the causes of unemployment. It soon became apparent, however, that these causes are so closely interwoven with the general body of economic activity that an isolated treatment of them is scarcely practicable." We shall consider in a later section what this book was about, because it also touches other aspects of the problem of poverty. But Pigou seems to consider unemployment as caused by the various hindrances to the realisation of the perfect competitive equilibrium. It is clear that Pigou was considering not only the impediments to labour mobility which was the preoccupation of Beveridge or of the period before 1912, but also the general failure in operation of the law of substitution in the economy through faults in entrepreneurial behaviour. Unemployment was either due, Pigou thought, to the presence of a conventional or artificial element in wages or to other imperfections in the economy. The imperfections in the economy were due to the presence of monopoly elements in varying degrees, and these led to a divergence between private interests and social interests by introducing an arbitrary element in all contracts. This was especially noticeable in the short period. On the other hand the domestic economy was also subject to errors in business forecasts or to unfavourable turns in the terms of trade making the demand for labour unsteady. He therefore advised philanthropic and state action designed to lessen the variability of this demand, as part of a broad policy of keeping prices steady and making the national dividend reach its maximum size.

To the fluctuations in the economy the subsequent period gave increasing attention. One may refer to D. H. Robertson's article in the *Journal of the Royal Statistical Society*[56] and his book on industrial fluctuations. One may also refer to R. G. Hawtrey's *Good and Bade Trade*: *An enquiry into the causes of industrial fluctuations,* which he wrote in 1913. The emphasis in Hawtrey's book was on monetary factors, factors on which Foxwell and other Bimetallists had placed emphasis in the '80s. According to this view a continuous fall in general prices brought about by demonetisation of silver — which was an aspect of the bad management of the monetary system — was responsible for the state of depression in industry and unsteadiness of employment. Pigou in his review of Hawtrey's book disagreed with Hawtrey[57]. The variations in the general bounty of nature or in the waves of confidence, often leading to a depression in the outlook of the business community were according to Pigou the main causes of industrial fluctuations. These, of course, exercise much of their influence upon industry through the banking system, but monetary factors themselves lie outside the scope of an enquiry into industrial fluctuations. He went on : "Mr. Hawtrey has failed to grasp this point. He therefore has shut himself off from an interesting enquiry." Hawtrey should have asked the question, Pigou suggested, "how far does the peculiar mechanism of the monetary and banking system augment the fluctuation?" D. H. Robertson and Bickerdike were both concerned with examining the non-monetary causes of fluctuation which Pigou had emphasised and it appears that their results lie somewhere between the very crude savings and investment type of analysis—further elaborated by an examination of the implications of heavy capital goods industries — which was attempted and later discarded by Jevons, and the development of the '30s. Keynes drew attention to this aspect of Jevons's work in his centenary allocution on Jevons's life and work in 1936. Robertson, however, did not draw on these suggestive observations of Jevons on the underlying causes of the trade cycle. He referred instead to Aftalion and to Karl Marx, who had emphasised the influence of the period of gestation of new capital and of replacement of capital in various trades, and particularly the influence of the length of life of investment in industries such as railways, cotton spinning and shipbuilding. Robertson was perhaps the first English economist to show statistically that there was some relation between the period of gestation and time paths of capital formation in certain trades and the industrial cycles of trade.[58]

It appears that there began a series of attempts, a little before the first world war, which sought to explain fluctuations in employment increasingly in terms of industrial fluctuations, and the latter increasingly in terms of non-monetary factors. Apart from monetary factors such as general prices or the rate of interest, Pigou and Robertson both emphasised the influence of the "period of gestation" and of "durability" of capital goods on the general movements of good and bad trade.[59] Following some of these suggestions, Bickerdike made another attempt to find out the non-monetary causes of fluctuation in employment. "One important and independent cause of fluctuations could be found," he wrote, "in the production of durable goods under competitive conditions." There was a correlation between durable trades and fluctuations, and there were differences, Bickerdike pointed out, between the changes in the demand for durable and non-durable goods. He argued that the manner in which durability operates, and the presence of existing stock and its maintenance provide one of the underlying causes of industrial fluctuations. "I do not suggest," he wrote, "that monetary factors are not important, but that they are probably as often as not a result of the fluctuations in the great constructive industries connected with the production of durable goods and especially are probably brought about by the high prices of materials in boom periods. In times of depression it is easy to see that the disturbance of purchasing power caused by the latter fluctuations is reflected in other industries or sets in motion the vicious circle of depression and has considerable influence in linking together the fluctuations in the various industries and the various countries of the world. The monetary disturbances are an exaggerating influence and also tend to give a greater degree of regularity in the periodicity than would be expected simply from the purely industrial and probability considerations."[60]

The importance of recognising this general tendency to fluctuation in constructive trades provided a justification, in Bickerdike's judgment, for schemes of unemployment insurance in such trades. They would, he argued, stop the reaction on other trades and would check the extension of the disturbance. It appears that Bickerdike is groping for the idea of the multiplier. Bickerdike also reached another conclusion of practical and theoretical significance, some what similar to that reached later by Keynes, when he stressed "that the willingness on the part of wage earners to accept considerable fluctuations in wages would be no remedy." This was a criticism of a policy of flexible wages to cure unemployment which Pigou was recommending. Bickerdike particularly referred to the influence of changing stocks of durable goods as the cause of fluctuations: "if a time came in which maintenance alone absorbed all the available energy, the fluctuations would cease. It is the fact that the stocks are large and yet are being increased that results in violent fluctuations in annual construction. . . . In the case of (durable goods), sound judgment combined with self-interest does not make for regularity of production."[61]

The war provided an instance of falling unemployment under the influence of rising government demand which was observed and commented upon by H. D. Henderson in his articles in the *Economic Journal*.[62] It is against the background of these studies of fluctuations in employment on account of the fluctuations in the size of new investment and of government demand that we should place the writings on unemployment produced in the '30s.

One should also mention the attempts made by the Webbs to explain the causes of unemployment. Their studies began very early, reaching an intermediate stage of development in the Minority Report of the Poor Law Commission; and were given a final shape in the late '20s in their Poor Law History. Although this last period is outside the scope of this study, it may be mentioned that the '20s were a period of extensive writing on unemployment. It seems to me that the Webbs were disappointed in not finding an answer to the problem of unemployment. The reason perhaps was that they continued to consider the problem of unemployment as consisting of a number of problems, and could not go beyond the pre-1909 approach. It was through a study of industrial fluctuations, and of movements in the level of total effective demand that the theory of employment finally came into existence; and the Webbs had realised that this was work they could not undertake.[63] This work certainly demanded the expertise of an economic theoretician — which the Webbs did not possess. In any history of the theory of employment, however, they would have an assured place for their work in this field.[64]

IV. WELFARE ECONOMICS

We have shown in the preceding pages the relation between the studies of poverty, the search for its causes and the probable lines of reform. It would not be inappropriate to describe Welfare Economics as that part of economics which looks for the economic causes of poverty or low standards of life and seeks to suggest economically sound ways of reform. At any rate, that is what the "Old" Welfare Economics of Pigou's *Wealth and Welfare* (1912) or of his *Economics of Welfare* were about. In our modern (or New) Welfare Economics[65] we have lost sight of this vital fact about its origin, and have got lost in a comparatively trivial warfare over the epistemological questions of measuring, adding and comparing utilities. All our efforts to reconstruct a new Welfare Economics on non-utilitarian Paretian, avowedly ethical or behaviourist foundations have not been successful. Such questions were raised in that age before 1915 also; we have shown (in the chapter on International Trade), that some of the neo-classicals were fully alive to the insecure foundations of the concepts involving the measuring, adding and the comparing of utilities. Pigou, in his *Economics of Welfare,* for example, makes very limited use of the concept of consumers' surplus, even though it is implicit in his arguments. To that age, enlightened commonsense and a vague sympathy with utilitarianism appeared to provide a good enough foundation for redistribution if it was a good enough basis for political democracy. The theoretical support to state intervention came from the growing knowledge of the imperfections of the economy and of its lapses from the ideal of a fully competitive equilibrium. In some cases even a fully competitive equilibrium did not give, the economists realised, maximum satisfaction and stood in need of manipulation. Imperfections of the market and of business forecasts, inequalities of bargaining power and of distribution, as Pigou discovered, led to the divergences of private and social costs and kept the private and social interests in production very often at cross purposes. These are familiar themes in contemporary economics and we need not examine them.[66] The state was thus expected to regulate the free play of market forces. The whole of the Pigovian Welfare Economics rests largely on this assumption of imperfect competition. But it is with the discovery of the limits of state interference that Welfare Economics was really concerned. This applies not only to what Pigou wrote,[67] but would apply also to the writings of Marshall, Edgeworth, Chapman, Bickerdike, Price, Cannan or, to some extent even of the Webbs. Certain institutional changes—it was generally realised—had become necessary to provide a framework within which the market forces or private enterprise were to be allowed to operate freely. As Cannan pointed out, it is only under the pressure of suitable institutions that self-interest coincides with the public interest.[68] The "invisible hand", it was generally believed, needed some strengthening.

That something was wrong with the wage contract and with the distribution of income and wealth was becoming clearer every day. This was brought home to economists by a very large number of socialistic writings and socialistic movements all over the world. It was also proved by the independent studies of poverty and unemployment that have been examined above. These were some of the lessons which political economy — as Sidgwick pointed out — had learnt from socialism.[69] "It is obvious that two systems or modes of thought" (Socialism and Political Economy), Sidgwick argued, "so close in their subject-matter — for the aim of both, so far as Political Economy has a practical aim, is to establish the production and distribution of wealth on a right basis — can hardly have lived side by side for a century without exercising an important influence on each other." The first effect of the collision with socialism, and of the socialist criticism of the actual distribution of incomes was, in Sidgwick's opinion, to bring Political Economy to a clearer consciousness of the essential difference, from a scientific point of view, between the two parts of its teaching; namely,

(a) an analysis of the process by which wealth was, or tended to be produced, divided, and exchanged, apart from governmental interference; and
(b) a demonstration that this process led to the best attainable result.

The result was, Sidgwick observed, that among the practical problems to which the "Science of Political Economy was now conceived as furnishing data, the problem of ameliorating distribution was more distinctly recognised as important."[70]

There are indications in the *Economic Journal* and in the later evolution of the theory and practice of socialist movements, that socialism had been learning (and has been learning all the time), equally from the subsequent growth of economic science.[71] Socialism and Welfare Economics are both about redistribution and rearrangement of production but with a very significant distinction. "Welfare Economics" has always been fully conscious that there were certain limits to schemes of re-allocation of resources and of redistribution of ownership, income and powers of management, and what have been called the marginal and the stability conditions of optimal production and exchange. In the earlier phases of socialism, socialist writers believed that no such limits to an authoritarian management of the economy did exist. It may also be pointed out that some economists were equally naive in insisting that there was no room for any readjustment in the economy.[72] Pigou conclusively proved that readjustment was necessary and possible, but he also pointed out the chief limitation on all over-hasty schemes of curing poverty by an immediate redistribution.

The national dividend was small, and any careless attempt at redistribution might tend to reduce its size or might tend to make it unsteady. For these reasons, it seems, Pigou desired redistribution to proceed slowly, and looked upon amelioration of poverty or inequality as a long-term objective. The most important precondition for any attempt to root out poverty was to assure an undiminished size of the national dividend, and to explore all possibilities of making it larger. Part of Pigou's welfare economics — as presented in his *Wealth and Welfare*, and its later version, *Economics of Welfare* — was therefore concerned with making this Marshallian[73] concept of "national dividend" operational, by indicating the ways in which it could be measured.

The right aim for the state was to keep the national dividend at the highest possible level, because welfare was a function of, among other things, its size. On account of various imperfections with which the economy behaved, and divergences in the interests of individuals or of groups from those of the society as a whole, Pigou showed that national income never reached its maximum possible size. Another desideratum was to make this dividend steady over time and particularly the portion of this dividend going to the working classes. This suggested certain policies aimed at reduction of fluctuations in employment.

The allocation of resources in Pigou's welfare economics, it appears, is just an aspect of the fundamental problem of keeping the national income at its highest level. The norms which Pigou proposed for achieving this objective have been more precisely stated since, by Lerner and Samuelson.[74]

As in the case of production, the imperfections of the factor markets and the unjustified elements of inequality in the distribution of existing wealth, suggested to the neo-classical economists in England the need for a measure of state intereference. Here, against Pareto's empirical judgment, that to every given national dividend — so long as technological coefficients of production did not change — there is a pre-determined scheme of distribution; Pigou's view was that because of the presence of the imperfections and the divergences in the economy, distribution could be usefully subjected to institutional pressures to make it more equitable, and thus to yield maximum satisfaction. We have already pointed out that one aspect of this policy was to raise wages and to make employment more steady. Another aspect of the same policy was to promote the growth of the social service state, with its pronouncedly redistributive tax system. Such a tax system — as we show in the next chapter — found a theoretical basis in certain aspects of Marshallian economics, namely, in the law of diminishing marginal utility of income, and in Marshall's emphasis on the element of time. The emphasis on the element of time focussed attention on some essentially unearned elements in incomes other than rent, and thus showed them to be equally able to bear a heavier load of taxes. But this emphasis introduced at the same time an element of caution, by referring to the long period requirements of the economy.[75] We consider all these issues relating to public finance in the next chapter.

An observation made by Foxwell indicates precisely what the age set out to do in the field of distribution.[76] "It is far more important and far more practicable to take care," argued Foxwell, "that the acquisition of new wealth proceeds justly, than to attempt to redistribute wealth already acquired. In a form of society where the distribution of wealth is left to depend upon contract or bargain, it is obviously of the first consequence that general economic conditions should be favourable to fairness and equality in bargaining." Socialist writers, whom Foxwell was criticising, had generally looked upon production and distribution as separate processes; unlike the neo-classical economists who viewed them (as modern socialists to a very large extent do) as one process. The socialist reformers for this reason often advocated an unqualified policy of redistribution of existing wealth to remedy poverty and inequality, without sufficient regard to the effects of such a policy on national income. Foxwell advocated, as other neo-classical economists did, setting up of fair and equal bargaining conditions, and put emphasis on the redistribution of income — new wealth as he termed it. This of course had to allow for the wear and tear of capital and for a steady growth in its size and efficiency. From the neo-classical point of vi[illegible] welfare economics — to permit a steady grow[illegible]l and entrepreneurial ability in the economy was an object as important as the other one of redistribution, of raising wages and reducing inequality. Probably the best economic policy according to the neo-classical economists would have been to keep progress on both these fronts more or less in balance. A policy that kept the size of the national income as large as possible, free from variations, and resulted in a steadily diminishing magnitude of poverty, might well have been in their view the right one; and these consequences would be an indication of the fact that the social reforms were well within the "production barrier" and not far out of line with the "redistributive drive."[77]

NOTES

1 See Sidney Fine, *Laissez Faire and the General Welfare State,* London 1956.

2 See Charles Booth, *Life and Labour of the People in London,* 17 Vols; Economic Journal, 1896, p. 70—; B. S. Rowntree *Poverty: A Study of Town Life* (1901); Macgregor, "The Poverty Figures", *Economic Journal,* Vol. xx; and Marshall, *Principles of Economics,* Eighth Edition, pp. 2 and 717—and Appendix "A". Also see Marshall's *Official Papers,* p. 197. Webbs's writings on poverty are well-known. In a way all their writings are about the various aspects of the problem of poverty. There is a striking similarity between some of the attitudes of the neo-classical economists and those of the Fabians, which has not been sufficiently recognised. It was due to the utilitarian and "radical" elements in their thought, which both of these groups had inherited from Bentham and J. S. Mill. In their methods of approach to an economic problem and in their views on the limits to which state action was to be extended, however, there were differences.

3 See *Life and Labour,* Vol. x, Chap. ix, written in collaboration with E. Aves, p. 326—also see *Economic Journal* March 1896, for an account of the Report on the Select Committee on the Unemployed and H. S. Foxwell's "Irregularities of Employment and Fluctuations of Prices", published in 1886.

4 See Court: *A Concise History of Britain,* p. 254.

5 See Rowntree's *York,* op. cit., and the review of this book in the *Economic Journal,* 1902.

6 For instance see *Principles,* pp. 2, 3.

7 See Chiozza Money, *Riches and Poverty,* (reviewed in *Economic Journal,* Vol. xvi), Hobson, *The Problem of the Unemployed: An Enquiry and an Economic Policy,* (reviewed in *Economic Journal,* Vol. vii); and his *Problems of Poverty: An Enquiry into the Industrial Conditions of the Poor,* (reviewed in *Economic Journal,* Vol. i).

8 Quoted from H. Llewellyn Smith's review of Hobson's book, *Problem of Poverty, Economic Journal,* September 1891.

9 The *Economic Journal* reviewed the several volumes of Booth's *Life and Labour,* when they first appeared. The reviewer was L. L. Price, who also wrote on the importance of Booth's work, in his *History of Political Economy in England,* (Chapter x, 15th Edition). For the Webbs' indebtedness to Booth, see Beatrice Webb's account of Charles Booth in her book *My Apprenticeship.*

10 The surveys of the 1930s have been listed and commented upon in a P.E.P. Broadsheet (4th August, 1952): *Poverty, Ten Years After Beveridge,* London (1929). Some of them are:—

A New Survey of London Life and Labour, (1930—1935) 9 Vols. Director, Sir Hubert Llewellyn Smith; *Merseyside,* (1929–1931). *Social Science of Merseyside,* edited by D. Caradog Jones, 1934. There were similar surveys of particular parts of England, of London and other industrial area in the 1930s. York was re-investigated by S. Rowntree in 1941 and in 1951.

Southampton, 1931, *Work and Wealth in a Modern Port,* P. Ford, 1934. Sheffield, 1933, *A Survey of the Standard of Living in Sheffield,* A. D. K. Owen, 1934. Miles Platting, 1933, *Poverty and Housing Conditions in a Manchester Ward,* John Inman, 1934. Plymouth, 1935, *A Social Survey of Plymouth,* 1935. York, 1936, *Poverty and Progress,* B. S. Rowntree, 1941. Bristol, 1937, *The Standard of Living in Bristol,* H. Tout, 1938. Birmingham (Kingstanding), 1939, *Nutrition and Size of the Family,* M. S. Soutar, E. H. Wilkins and P. Sargent Florence, 1942.

B. S. Rowntree and G. R. Lavers, *Poverty and the Welfare State: A Third Social Survey of York,* dealing only with Economic Questions, 1951. This measures the decline in poverty since 1936.

11 See the review of Bowley's survey *Livelihood and Poverty, Economic Journal,* Vol xxv, p. 927, also see Dendys: " The Cause of Poverty " *Economic Journal,* December 1891, p. 808.

12 Also see the P.E.P. Broadsheet, 4th August, 1952.

13 A survey more or less on the lines of Booth's has been undertaken in Italy recently. See *International Labour Review,* 1955.

14 For instance, see, "The Causes of Poverty", H. Dendys, *Economic Journal,* December 1891; Reviews of the various volumes of Booth's *Life and Labour* in the *Economic Journal; Poverty, A Study of Town Life,* B. S. Rowntree, reviewed in the *Economic Journal,* 1902; *Problem of Poverty: An inquiry into the industrial conditions of the Poor,* by J. A. Hobson, reviewed in *Economic Journal,* 1891, p. 583; *Riches and Poverty* by Chiozza Money, reviewed in *Economic Journal,* March 1905; Hurst and Bowley: *Livelihood and Poverty,* reviewed in *Economic Journal,* September 1915; *West Ham: A Study in Social and Industrial Problems,* reviewed in *Economic Journal,* 1908; " Wage Earners' Budgets: A Study of Standards and Cost of Living in New York City " in *Economic Journal,* 1908, p. 77; and " People and Houses ", in *Economic Journal,* 1900.

15 D. H. Macgregor: " Poverty Figures ", *Economic Journal,* December, 1910.

16 See " State Pensions " by J. Rae, *Economic Journal,* 1892; p. 183; " The Poor Law in Relation to State Aided Pensions ", by A. Marshall, *Economic Journal,* 1892, p. 186—; " Thrift in Great Britain ", *Economic Journal,* 1892, p. 290, p. 354 and p. 357. " The Limitations of the Poor Law " by B. Bosanquet, *Economic Journal,* June 1892; " Poor Law Reform ", A. Marshall, p. 371, 1892; " The System of Boarding Out Pauper Children ", March 1893; " The Conditions of State Relief in Denmark ", June 1893; " Some Disputed Points in the Administration of Poor Relief ", by C. H. Loch, *Economic Journal,* June 1893; " The Industrial Residuum ", *Economic Journal,* December 1893; " Public Assistance of the Poor in France ", December 1893; Mr. Charles Booth on " The Aged Poor ", C. H. Loch, *Economic Journal,* September

1893; "The Report of the Royal Commission on Old Age Pauperism", December 1895; "Working Man's Insurance" by H. W. Wolff *Economic Journal,* 1895; "The German Insurance Laws", *Economic Journal,* June 1896; "Housing of the Poor", December 1897; "Old Age Pensions", *Economic Journal,* September 1898 and December 1899 (by C. H. Loch); "The Causes of Poverty", December 1891, p. 808; *Danish Poor Relief System,* reviewed *Economic Journal,* March 1905; "Provision of Food for School Children in Public Elementary Schools", *Economic Journal* 1906; *Philanthropy and the State* by B. K. Gray, reviewed *Economic Journal,* 1909 June, p. 237; Dilke, "Social Reform by State", *Economic Journal,* June 1909; "The Poor Law Controversy", *Economic Journal,* September 1910; "The New Old Age Pensions in France", *Economic Journal,* June 1910; *The Royal Commission on the Poor Laws and the Relief of Distress;* its review *Economic Journal,* June 1911.
"Insurance against Sickness and Invalidity and Old Age in Germany", *Economic Journal,* 1911, p. 185; "Foreign and Colonial Systems of Poor Law Relief", *Economic Journal,* 1911; *Insurance vs. Poverty* by Chiozza Money, reviewed *Economic Journal,* 1912; "Some Recent Developments of Poor Relief", *Economic Journal,* December 1912; "The Feeding and Medical Treatment of Children", *Economic Journal,* September 1913; "Incidence of National Insurance Contributions", September 1913; *Medical Benefit in Germany and Denmark,* by I. G. Gibbon, reviewed *Economic Journal,* March 1913; and "The Working of Insurance Act", *Economic Journal,* December 1913.

17 Chamberlain was at that time (1886) the Chairman of the Local Government Board. For an account of this circular and its significance, see *Unemployment,* by Beveridge; Webbs, *English Poor Law History,* Pt. II (Vol. ii), Chap. vii—p. 644; Hutchison: *A Review of Economic Doctrine,* 1870-1929, Chap. 24, p. 414; and "Some Recent Developments of Poor Relief", *Economic Journal,* December 1912.

18 See "The Limitations of the Poor Law" by B. Bosanquet, *Economic Journal,* June 1892, p. 369.

19 "Some Economic Issues in Regard to Old Age Pensions", *Economic Journal,* December 1895, p. 347—Loch criticised Booth and Marshall. Also see another article by Loch in *Economic Journal,* December 1899, on Old Age Pensions.

20 See *Economic Journal,* June 1892 and Marshall's *Official Papers,* pp. 244—245.

21 See Marshall's *Principles,* for his views on the National Dividend —expressed in a number of places, difficult to specify; also see Pigou's review of Marshall's *Principles* in *Economic Journal,* 1907.

22 "Other things being equal, a general increase in the national dividend, a change in the distribution of the dividend favourable to the poor, and a 'steadying' of the dividend particularly of that part of it which goes to the poor, would all be likely to increase economic welfare and through economic welfare general welfare." Pigou, *Wealth and Welfare,* pp. 61—62. Also see p. 66 and pp. 487—488. We refer to Edgeworth and Bickerdike's views bearing on the relation between taxes and national dividend, in the next chapter.

23 For articles and notes on these schemes see *Economic Journal,* March 1898, June and December, 1906; March 1909; and an article by Carr Saunders, September 1913. Also see the review of *The Feeding of School Children* by M. E. Buckley, *Economic Journal,* 1915. Also see *Economic Journal,* 1893, p. 138. B. K. Gray: *Philanthropy and the State* (reviewed *Economic Journal,* 1909, p. 238). H. L. Smith "Economic Security and Unemployment Insurance", *Economic Journal,* December 1910.

24 See "Insurance against Sickness and Invalidity and Old Age in Germany", *Economic Journal,* June 1911, an article by I. G. Gibbon; See Marshall on German Progress in Welfare Legislation, etc., in his *Principles,* Appendix "A", p. 753; also see a review by C. J. Hamilton of *Foreign and Colonial Systems of Poor Law Relief,* Appendix to Vol. 33 of the Royal Commission on Poor Laws, *Economic Journal,* March 1911, p. 156, and a review of H. R. Seagar's *Social Insurance, Economic Journal,* March 1911, p. 107; Chiozza Money, *Insurance vs. Poverty* reviewed *Economic Journal,* September 1912. Also see *Social and Economic History of Germany from William II to Hitler,* 1888-1938, by W. F. Bruck, Oxford 1938, pp. 123–125.

25 "The Conditions of State Relief in Denmark", *Economic Journal,* 1893, p. 325.

26 "The Industrial Residuum", *Economic Journal,* 1893, p. 600.

27 Peter Green *Economic Journal* 1895, p. 293.

28 F. C. Montague, in his review of Bosanquet's *Aspects of the Social Problem, Economic Journal,* 1896, p. 257.

29 See Janet E. Hogarth: "The German Insurance Laws" *Economic Journal,* June 1896, p. 285. For the anxiety of the late Victorians of the eighties and nineties see Sir John Clapham's *Economic History* 1850—1886.

30 Also see *Economic Journal,* June 1909 and June and September 1910 for the views on the Poor Law Commission's Reports.

31 See Beveridge Report (1942) on "**Social Insurance and Allied** Services"; see also *Economic Journal,* **1943.**

32 See *Economic Journal*, June 1896, the article on "The German Insurance Laws' by J. E. Hogarth (mentioned above). For a study of incidence of National Insurance Contributions, see *Economic Journal*, September 1913, p. 367. For the working of the Insurance Ace, see *Economic Journal,* 1913; a literature started growing up on the subject of the various applications of the Principles of Insurance.

33 *The Prevention of Destitution,* and the later volumes on the Poor Law History.

34 See Hutchinson: *A Review of Economic Doctrines,* Chapter 24.

35 For instance in the case of the Webbs or of Rowntree. To some extent it is noticeable in Beveridge's *Unemployment* (1909). Another writer on Unemployment, N. B. Dearle expressed this attitude very well. "The difficulty of the question of dealing with unemployment is often concealed by the tendency to treat it as a single problem whereas really there are many separate ones, each needing treatment and methods peculiar to itself and the necessity of inquiring what are the general industrial and special conditions producing unemployment in each individual

case is particularly neglected." (*Problems of Unemployment in the London Building Trades,* 1908).
This view which one may call the " micro " approach to the problem of unemployment is fundamentally different from the " macro " approach of Hobson. The practice still continues today.

36 The *Economic Journal* has summarised these late 19th century reports for us; see for instance the summaries of the Report on Agencies and Methods for dealing with the unemployed by the Labour Department, Board of Trade, *Economic Journal,* March 1894, p. 181; Report on The Unemployment of Women (submitted to the Royal Commission on Labour), March 1894 p. 185; The Question of the Unemployed in Massachusetts, June 1894, p. 361: Report by Miss Collet on the statistics of employment of women and girls, Board of Trade, September 1895; The work of the Select Committee of the House of Commons on Distress from Want of Employment, March 1896, p. 143, and its Final Report, *Economic Journal,* December 1896, p. 650.
There are also accounts given of attempts to solve the problem abroad, for instance, the unemployment problem of Basle, March 1897, The Municipality of Paris and the Unemployed, March 1898.
Also see the review of the Unemployed Workmen Bill, *Economic Journal,* June 1905.

37 *Economic Journal,* 1894, p. 181.

38 The books, pamphlets, articles and reports about unemployment, previously scanty, became after 1883 almost innumerable. *A Bibliography of Unemployment and the Unemployed* by F. Isabel Taylor (1909) enumerates along with a few of earlier date 700 such publications in Great Britain alone. Also see, Webbs: *Poor Law History,* Part II, Vol. 2, p. 636. S. Webb wrote an introduction to this little volume by Miss Taylor. The Webbs mention the following as the important publications on unemployment:
The Government Organisation of Unemployed Labour, (Fabian Society 1884); *In Darkest England and the Way Out* by General Booth, (1890); Board of Trade report on Agencies and Methods for dealing with the Unemployed (1893); Reports of the Select Committee on Distress from Want of Employment, 1895–1896; *The Problem of the Unemployed* by Hobson, 1896; *Unemployment: A Problem of Industry* by Beveridge, 1909 (this book also gives a bibliography); *The Remedy for Unemployment* by W. R. Wallace (1909) and *The Public Organisation of the Labour Market by the Webbs* (Part 2 of the Minority Report of the Poor Law Commission), 1909.

39 " The Question of the Unemployed in Massachusetts ", *Economic Journal,* June 1894, p. 361.
An unemployed person is "one who at any particular time desires to find remunerative work and fails to do so."

40 See *Economic Journal,* June 1905.

41 See Hobson's *The Problem of the Unemployed,* 1896, Preface.

42 *The Problem of the Unemployed,* (1896) was reviewed in Economic *Journal,* March 1897.

43 See " The Problem of our National Savings ", *Economic Journal,* December 1899; Renton, " Difficulties Attending the Reduction

of the National Debt", *Economic Journal,* 1906; "The Investment of Surplus Revenue and the Savings Bank Funds", *Economic Journal,* 1899, p. 18.

44 See *Economic Journal,* September 1956, p. 487. Marshall's statement is on p. 710 of the *Principles.* It follows a discussion of Say's law. The last two chapters of the *Principles* are extremely important for an understanding of Marshall's views on Economic Policy or for an understanding of Keynesian developments. For Keynes's comment on this observation, and on Hobson's views, see *The General Theory,* Chapter 2, p. 19.

45 "The Fair Number of Apprentices in a Trade", *Economic Journal,* 1905; p. 616, and September 1905, pp. 448—449.

46 The Articles appeared in the *Journal of the Royal Statistical Society,* the *Economic Journal* refers to it—See *Economic Journal,* September 1906, p. 483.

47 See the Index to the *Economic Journal,* Vols. xi—xx, (1911) pp. 93 and 99.

48 *Economic Journal,* September 1905, pp. 448—449.

49 See N. B. Dearle's review of Beveridge's *Unemployment: A Problem of Industry* (1909) *Economic Journal,* June 1909.

50 See the various articles on Labour Exchanges written by Beveridge in the *Economic Journal,* Vols. xvi, p. 437, xvii, p. 66 and xviii, p. 1, and D. H. Macgregor's article "Labour Exchanges and Unemployment", *Economic Journal,* Vol. xvii, p. 585.

51 See *Unemployment, A Problem of Industry,* Preface.

52 D. H. Macgregor: "Labour Exchanges and Unemployment," *Economic Journal,* Vol. xvii, p. 585. "Is there any justification for the idea," asked D. H. Macgregor, "that productive work can be found for every individual in a community, somehow, or somewhere? This is the most important theoretical (or scientific) aspect of the question."

53 See N. B. Dearle: *Problems of Unemployment in the London Building Trade,* and its review in the *Economic Journal,* March 1909 and "Apprenticeship Question", *Economic Journal,* September 1909. Tawney: "The Economics of Boy Labour", *Economic Journal,* December 1909. There were also studies made of the problem and the possibilities of unemployment insurance—see specially "Economic Security and Unemployment Insurance", by Sir H. L. Smith, *Economic Journal,* December 1910, and "The Government Scheme for Insurance against Unemployment", *Economic Journal,* 1911. The working of the various schemes to remedy unemployment were also kept under continuous examination.

There were a number of books written on various aspects of blind-alley labour during the period, by Greenwood: *Blind Alley Labour* (1912), Tawney and others, and also articles in the *Economic Journal.* This was an aspect of the casual labour problem which was the subject of general discussion. See Keeling: "Towards the Solution of the Casual Labour Problem", *Economic Journal,* 1913.

54 See the *New Survey of London Life and Labour,* Vol. i, Chap. x, by Beveridge, "Unemployment and its Treatment"; also see "Employment and the Mobility of Labour" by J. St. G. Heath, *Economic Journal,* June 1911, pp. 202–211; and *Unemployment:*

A Social Study by Rowntree, and its review, *Economic Journal,* March 1912.

55 Pigou also wrote a book on unemployment, in non-technical language, in 1918, which was reviewed by Beveridge, see *Economic Journal,* June 1914.
Beveridge criticised Pigou for the statement that unemployment is wholly caused by maladjustment between wage rates and demand. Pigou had argued that "apart from fluctuations there could not exist any unemployment whatever" if wage rates were flexible.

56 See J. A. Schumpeter: *History of Economic Analysis,* p. 1127; Robertson's very suggestive article was published in *Journal of the Royal Statistical Society,* in 1915, and his book in 1915. He has pointed out his indebtedness in this book to Aftalion. I refer to this article especially because Bickerdike refers to it. See *Economic Journal,* Vol. xiv, p. 357. x

57 See Pigou's review of Hawtrey's book, *Economic Journal,* Vol. xxiii.

58 See Keynes's centenary allocution published in the *Journal of the Royal Statistical Society,* 1936, and republished in his *Essays in Biography,* New Ed. pp. 271—272; and Robertson's suggestive paper, "Some Material for a Study of Trade Fluctuations", published in *Journal of the Royal Statistical Society,* March 1914. Comments on this paper by Edgeworth are very interesting; Edgeworth described the paper as a "good illustration of the fundamental distinction between long and short periods". The relation between Aftalion's work and Robertson's is well-known. Marx suggested, Robertson pointed out, that the decennial character of crises was due to the fact that the fixed capital of the world needed replacement every ten years. See Robertson, op. cit.

59 Pigou suggested this non-monetary approach in his *Wealth and Welfare,* p. 144; Robertson in his article in the *Journal of the Royal Statistical Society.* Bickerdike referred to these in his articles in *Economic Journal,* 1914, op. cit.

60 Compare some of these ideas with Hicks's more recent views on the trade cycle.

61 The quotations are from Bickerdike's article, see *Economic Journal,* September 1914.

62 See Henderson: "Influence of War on Employment", *Economic Journal,* December 1914, which emphasises the relation between the influence of the size and loss of markets and the level of government demand on the level of employment; also in March and June 1915. They were based on the Board of Trade reports on the state of employment.

63 See "The Report of the Government Organisation of Unemployed Labour", a Fabian Society publication, 1884.

64 See Chapter vii, "Unemployment as a Disease of Modern Industry" in their *English Poor Law History,* Part II; "The Last Hundred Years", Vol. ii, for an excellent account of the history of the problem of unemployment. This chapter also gives a list of books on unemployment written during the 20s, and the Webbs's conclusions on the problem. The Webbs were certain that unemployment insurance had not solved the problem

of unemployment. As Beatrice Webb said: "It is neither prevention nor treatment; it is in fact a form of relief — perhaps the least demoralising form." *Diaries,* 1924—32, p. 150. She added: "There are reasons for amalgamating the treatment for the unemployed with the prevention of unemployment. There is at present no technique, either in treatment or prevention. This has to be invented and we shall not invent it." The authority to prevent unemployment, the Webbs thought, must be national; the function was unsuitable for local government. Beatrice Webb's diaries suggest that she expected Keynes would provide an answer to the problem of unemployment.

65 For an account of the New Welfare Economics, see Samuelson: *Foundations of Economic Analysis,* the chapter on Welfare Economics, Hicks's article *Economic Journal,* 1939; Robertson: *Utility and All That;* Kaldor's brief note on "Welfare Economics", *Economic Journal,* 1938; and G. Myrdal's *Political Element in the Development of Economic Theory,* especially, the Appendix.

66 See for example, Scitovsky's *Welfare and Competition.*

67 See Pigou, *Economics in Practice,* the essay on "State Action and Laissez Faire" (1935).

68 See Pigou: op. cit.

69 Sidgwick: "The Economic Lessons of Socialism", *Economic Journal,* September 1895.

70 Sidgwick, op. cit.
The other important lesson for which Political Economy was in some measure indebted to the controversy with socialism, was according to Sidgwick, "a completer analysis of the process of accumulating and employing capital, bringing into prominence inventive and industrial skill." *Economic Journal,* 1895, p. 345. The other quotations are from pp. 336, 339 and 340.

71 There are a large number of significant articles on Socialism, and reviews of books on Socialism, in the *Economic Journal.* They indicate the changes coming over the socialist movements in Germany and England and even in socialist thought. A confused view of socialism was presented by Courtney in his article, "The Difficulties of Socialism", *Economic Journal,* 1891; which induced S. Webb to write an extremely important article on the "Difficulties of Individualism", *Economic Journal,* 1891. This article shows that the Fabians viewed Socialism as an extension of Political Democracy. It also indicates the common ground between Welfare Economics and Contemporary Socialism. Some of the important books reviewed were: *Socialism Old and New,* Graham, *Economic Journal* 1891; *An Introduction to Social Philosophy,* J. S. Mackenzie, *Economic Journal,* 1891; *Contemporary Socialism,* J. Rae, *Economic Journal* 1891, Rignano on *Socialism, Economic Journal,* March 1904 (Rignano has left a lasting influence on English Socialist thought); "Bi-socialism", *Economic Journal,* 1904 and books on *Socialism* by W. Sombart. See also the articles dealing with "The German Socialist Party", September 1891 and December 1891.

72 There is a most interesting literature on the Economics of Socialism. For a summary of what this literature is about and

for the drift of opinion in it, see J. A. Schumpeter: *Economic Analysis,* p. 985.

73 See Pigou's review of Marshall's *Principles* in *Economic Journal,* 1907, where Pigou picked out for comment the two most important Marshallian concepts namely, the National Dividend and the Element of Time.

74 See Lerner's *Economics of Control,* and Samuelson's *Foundations of Economic Analysis.* It is interesting to compare this allocative aspect of Pigou's welfare economics, with the Austrian economists' attempts at developing a theory of economic planning by a general use of the theory of the value.

75 See Marshall's *Principles,* Variorum Edition, Vol. ii, pp. 799–800.

76 See Foxwell, H. S., " Introduction to A. Menger's The Right to the Whole Produce of Labour ", p. cx, 1899.

77 For an early criticism of socialist views on authoritarian distribution, see Enrico Barone's well-known article in *Geornale deglia Economisti,* 1908; translated and republished as, " The Ministry of Production in the Collectivist State " in *Collectivist Economic Planning,* edited by F. A. Hayek, London, 1935.

Chapter VII

PUBLIC FINANCE

Public Finance

The general practice in the histories of economic thought has so far been to pay very little attention to the evolution of fiscal thought. The well-known histories of Gide and Rist, Erich Roll, Haney, Hutchison, Whittaker and the Lecture Notes of Mitchell, for instance, are almost silent on this aspect. Schumpeter's *Economic Analysis* is an exception; but there also the treatment is scattered and sketchy. The reason has been that during the neo-classical period, matters relating to public finance were somewhat segregated from the main body of economic theory. The result was that eventually public finance dropped out of the main stream of economics. There was a general attempt to look upon public finance as an independent discipline cutting across the boundaries of economics and politics. The history of the theory of public finance thus became the task of those who wrote specifically on public finance. Bastable and Findley Shirras, for example, give in their text books an outline history of the growth of fiscal doctrines and of the evolution of specific taxes. In his many books on public finance, particularly in his *Essays on Taxation, The Shifting and Incidence of Taxation* and *Progressive Taxation,* Seligman attempts the histories of taxes as well as of ideas on public finance. Dalton has dealt briefly with the literature on public finance.[1] A detailed but uncoordinated account of the development of ideas about taxation from ancient times to 1914, is to be found in *The Nature and First Principles of Taxation* by Robert Jones (1914). This book was written as a doctoral thesis under Cannan's supervision. Myrdal, in one of the chapters of his *Political Element in the Development of Economic Theory* has presented a systematic account of the growth of the theory of public finance. But Myrdal's emphasis is placed broadly speaking on the non-economic elements. Kaldor's recent book, *The Expenditure Tax,* deals incidentally with certain aspects of the history of the theory of public finance.

One result of the Keynesian Revolution has been to put public finance back into the mainstream of economics. Its integration with monetary policy and the developments in general economic theory has also been accomplished. On the historical side as well as on the theoretical, however, a good deal remains to be done.

We have tried to show in the first part of this chapter the economic foundations of the neo-classical theory of public finance. The second part of the chapter examines some of the more specific contributions made to public finance through the *Economic Journal.* They relate mainly to the problems of the graduation of income tax, and of local finance and war finance.

The neo-classical theory of public finance grew out of the classical theory of public finance; but it also broke away from it. It corresponds to the departures in the field of English budgeting from the tradition built up by Gladstone.

I. THE NEO-CLASSICAL THEORY OF PUBLIC FINANCE

The theory of public finance of classical economists was integrally related to their views on free trade; it also reflected their confidence in the ability of private enterprise. The relation between public finance and commercial policy in Britain was extremely intimate during the years of what are known as Gladstonian budgets. For Gladstone, income tax was an "engine" of fiscal reform, which he had retained during peace in order to establish free trade. He was also concerned with keeping his budgets balanced, and the total amount of public expenditure small and economical. In these respects he was in agreement with the economists of his time, who looked upon public expenditure almost as unproductive consumption.[2] They were also suspicious of any addition to the existing public debt.[3] In spite of these considerations, however, and in spite of his eagerness to abolish income tax as soon as free trade was established in England, Gladstone was unable to do so. By 1874 income tax became a permanent part of the British tax system. Gladstone's failure was due to a number of causes. The most important of them all was perhaps the change that had come over in the nature and in the costs of administration. Probably the fall of general prices that started in the early '70s also had something to do with it. However, it was the general opinion after the '70s that the simplification of the tax basis had already been carried too far, that new taxes had become necessary, and that the income tax, at any rate, had come to stay.

Though it seems contrary to Gladstone's idea of regarding the income tax as nothing more than a temporary or an emergency measure, such a tax was in reality the normal outcome of his financial administration. Even though his dream was to repeal the income tax, his fiscal reform measures tended to make it permanent. The neo-classical economists came to realise it later.[4] But it was not clearly realised by Gladstone, nor perhaps by some of the classical economists, that the taxation of net income as the most desirable form of taxation was inherent in Gladstone's own policy and in Adam Smith's thoughts on finance. In practice Smith had opposed the taxation of wages and profits because it involved inquisitional practices and the loss of individual liberty. Although the 19th century politicians generally took Adam Smith as their guide in matters of public finance, they were forced by circumstances to introduce income tax, which was to a very large extent a tax on wages and profits. At the same time some of the economists of the first half of the 19th century were able to give a more complete expression to what could be called the classical theory of public finance.

I believe that Ricardo's chapters on public finance in his *Political Economy and Taxation* provide the best expression of the views of classical economists on the economic foundations of taxation. But there were other statements of this view; for instance, by J. B. Say whom Ricardo quotes with approval, and by Sismondi. Say's "golden maxim" is, "that the very best of all plans of finance is to spend little and the best of all taxes is that which is least in amount." Ricardo's views are expressed in his chapter on Taxes.[5] It It will be sufficient to quote the less well-known maxims of Sismondi, which are very similar to those of Ricardo, to illustrate what the economists considered to be an economically sound basis for a tax system. Sismondi's maxims are as follows: —

(a) Every tax should fall on revenue and not on capital.
(b) In the assessment of taxation, gross receipts should not be confounded with net revenue.
(c) Taxation should never touch what is necessary for the existence of the contributor.

(d) Taxation should not put to flight the wealth on which it is imposed.[6]

These principles of taxation were re-emphasised by J. S. Mill in his *Principles* with certain modifications, and were handed down to the subsequent generation of neo-classical economists. Marshall referred to these, what could be called the fundamental principles of taxation, as the "Philosophy of Taxation". He uses this expression in his essay on "National Taxation after the War", which was published in a volume of essays, entitled *After-War Problems*, and edited by W. H. Dawson in 1917.[7] It is clear that these principles of a good tax system, relate mainly to economic considerations. The well-known maxims of Adam Smith, on the other hand, with the possible exception of "economy", suggest the ethical and legal foundations of a good tax policy. It would not be far wrong to say that Adam Smith's canons are not strictly economic considerations; they provide principles for the distribution of the tax burden and for the administration of taxes.

The neo-classical writers attached much importance to the distribution of the tax burden; but it was against the background of this "philosophy of taxation" that they studied the problems raised by the principles of equity. These general principles that were considered to be as important as equity, if not far more important for taxation, were restated, as has been mentioned by J. S. Mill.[8] They were: —

(a) tax income and avoid encroaching upon capital as far as possible;
(b) tax surpluses and unearned incomes, especially rent more than earned incomes;
(c) do not tax costs;
(d) tax luxuries or harmful things like alcohol, but avoid taxing, if possible, the necessaries of life;
(e) above all, do not tax away anything beyond a small portion of the annual revenue of the people and avoid taxing the poor as far as practicable.

The pure theory of public finance with which the neo-classical economists were concerned attempted to clarify the relationship between the principles of equity and these foundations of taxation. It is unnecessary here to give a detailed account of the use of the principle of diminishing marginal utility and Utilitarianism by Sidgwick and Edgeworth to justify progressive income taxation, and the propriety of using the "least aggregate sacrifice principle" for taxation to achieve equity and justice.[9] It is more important to stress that Edgeworth qualified his "least aggregate sacrifice principle" by placing alongside it the other equally important ideal of maximum production. "It being admitted that the desideratum is some compromise between the benefits and the burdens of taxation, if, with Professor Sidgwick, we leave out of consideration the political conditions of a good tax (upon which the amount and kind of taxation depend largely), those conditions which the economist is principally concerned to realise may thus *prima facie* be envisaged: to obtain the nearest possible approximation to equality of sacrifice; with the least possible check to the production of wealth."[10] This was Edgeworth's opinion; but all neo-classical economists were agreed on the need to balance the rival claims of the two principles of taxation, those of equity and economy. "Even in the interests of equity," Marshall insisted, "canons based on considerations of mere equity are often but of secondary importance. Speaking generally, these systems of finance have caused the least injustice and hardship which have most favoured the development of the energies and inventiveness of the people, which have hindered them the least in the selection of those routes for the satisfaction of those wants."[11]

Cannan insisted on the consideration of the immediate and the remote effects of taxes when applying the " least aggregate suffering principle". "The conclusion at which we arrive," said Cannan, "seems to be that economy plays and should play a much greater part, and equity a much smaller part in schemes of taxation than is commonly supposed."[12]

Cannan's student, Richard Jones, in his book published in 1914, presented economy as the most important principle of taxation. In matters of taxation as in the case of wage fixing there is a constant interplay between the considerations of equity and economy, and a scientific conclusion as to a policy of taxation cannot be reached without considering the ethical as well as the purely economic problems. The neo-classical writers almost raised the consideration of the effects of a tax on the productive efficiency of the economic system and on the size of the total satisfaction of the consumers into a new principle of taxation.

According to Edgeworth,[13] the science of taxation comprises two subjects to which the character of pure theory may be ascribed: the laws of incidence and the principle of equal sacrifice. We have briefly examined the latter and indicated the limits to which the neo-classical writers wanted to push it in the extension of income taxation. We would now consider the laws of incidence as they were interpreted and restated by Edgeworth and Marshall.

It had been an established tradition in economics to discuss the incidence of taxes to provide a criterion of a good tax system, the rule according to which the burden of taxation ought to be distributed among the tax payers. The method was to study the operation of the various taxes on the economy deductively on the basis of certain assumptions. These taxes were the various commodity or outlay taxes with which the 19th century was familiar. What the neo-classicals did was to classify the various taxes as direct and indirect and to study their operation on the economy individually, under the two imprecise categories of effects and incidence.[14] The change in the character of studies of incidence, that we observe as we move from the point where J. S. Mill left them towards the '90s is the increasing use in them of mathematical reasoning and of a more precise theory of value. It appears that Cournot suggested the direction of analysis, and Fleeming Jenkin the use of diagrams for the purpose.[15] Cournot had considered taxes as additions to costs and prices, and had analysed the impact of a tax on the other variables in the economy. Studies of incidence or effects of taxes, after he was rediscovered by the neo-classical economists in England, increasingly became an exercise in the analysis and illustration of the theory of value. This involved no less than an analysis of the reactions of price, of demand, of the scale of production and output, and of the distribution and the redistribution of the tax burden between the parties to the exchange of the commodity taxed, to this exogenous alteration in cost or price, as the case may be. Marshall used incidence of taxation to illustrate and to throw sidelights on the problem of value. "There is scarcely any economic principle," he wrote, "which cannot be aptly illustrated by a discussion of the shifting of the effects of some tax forwards, i.e., towards the ultimate consumer and away from the producer of raw materials and implements of production; or else in the opposite direction — backwards."[16] The theories of incidence therefore become analyses of the diffusion throughout the community of a once-for-all rise in costs brought about by a tax and working itself out through a rise in supply prices and in the price. After the publication of the *Principles* of Marshall the concepts of elasticity of supply and demand were increasingly used to trace out the incidence of a tax.[17] Incidence and the sharing out of the burden of the well-known commodity taxes — and during the debate on the reform of urban rates, of the house tax — were studied. Taxes on commodities — independent and correlated — produced under the various conditions of cost and of demand, were chosen for examination. Edgeworth specially analysed incidence of taxes on commodities produced under monopoly conditions and under conditions of imperfect mobility of labour and capital.[18]

Behind all these deductive studies of incidence lies the view that a tax is a surcharge on the "natural" cost of production, and an artificial alteration of prices brought about by government in its own interest, the effects of which spread out over the whole range of economic activity modifying the level and the "naturalness" of this activity. The burden, it was believed was shared in accordance with the supply and demand position of the parties of the exchange. If the tax meant a rise in the cost and involved the shifting of the supply schedule or if a tax meant a rise in price and involved a displacement of the demand curve, it is understandable that the diagrammatic analysis of the effects of taxes should follow the lines of the neo-classical value analysis. The incidence of the rise in the cost, given by the market under conditions of perfect competition, was studied both for the short and the long periods. As Carver pointed out, incidence of freight rates, taxes, tariffs, insurance and other special items of cost including arbitrary wage advances present the same fundamental problem of the lapsing from the laws of perfect competition.[19] Incidence of all those costs involved in interfering with the economy could thus be studied on similar lines. This was an implication of the neo-classical way of examining the incidence of taxes and this synthesis was attempted by Carver in 1924.

There were others who wrote on incidence: Seligman, Bastable, Cunynghame, Pigou and Bickerdike. Seligman and Bastable both viewed the theoretical and deductive analysis of indicence as highly imprecise and its conclusions uncertain in view of the large hypothetical element in the theory of value itself. Seligman was primarily concerned with finding out which classes did actually bear the burden of the tax. The neo-classical writers in England, Marshall and Edgeworth for instance, on the other hand, studied incidence to find out the effects of taxation on the economy as a whole, on private enterprise and on the consumer, on the lines of comparative statics. The recent statistical studies of incidence by Shirras, Rostas and Hicks have followed Seligman in this respect.

We have been using the words, effects and incidence rather indiscriminately so far, but that was also the practice amongst the neo-classicals. There were differences amongst Cannan, Edgeworth and other economists perhaps, as to the precise meaning of these concepts. The debate upon the meaning of the terms, effects and incidence of taxes, was reopened by the Colwyn Committee, and is probably coming to its close after the clarification suggested by Mrs. Hicks.[20] It appears that the general trend since 1890 has been to use "effects" and to eschew the use of "incidence". It seems likely that "effects" was the more appropriate term to describe the results of direct taxes, such as the house tax, death duties, land value taxes or an income tax which operate on the economy more effectively than of the indirect commodity taxes for which the term "incidence" had been used. As these direct taxes developed from the '90s to 1928, more attention was given to the examination of their incidence or impact on the economy. Apart from the general discussions of the principle of progressive taxation, and of the need to keep the adverse effects of high rates of taxation on production always in view while introducing or graduating a direct tax, very little was written by Marshall and Edgeworth on the effects of an income tax as such. It was in their contributions to the Colwyn Committee in 1927, and during the debate that followed, that Pigou, Seligman, Keynes, Robertson and Coates examined the effects of income tax and of other direct taxes on prices, and savings, and on the productivity of the economy as a whole.[21]

As is well known the neo-classicals preferred direct taxes to indirect. Apart from equity considerations, and writing long before income taxation became steeply progressive and the possibility of making indirect taxes less regressive was understood, they thought, following

Marshall, that indirect taxation, if it was not strictly limited to the commodities of inelastic demand, caused a greater loss of consumers' surplus than what was gained by the state. This neo-classical preference for direct taxation over indirect has been the subject of a most interesting debate in recent years.[22] The use of indifference curves and the examination of the conflicting demands for income and leisure have shown the limitations to which this preference is subject. But in spite of this preference as we move from 1890 to 1928, we can observe the increasing academic approval of indirect taxation as an integral part of a tax system, which is kept progressive by direct taxes in the aggregate. Examine for instance Marshall and Seligman's views on the question of the tax burden. "Onerous taxes, imperial and local," says Marshall, "must be treated as a whole. Almost every onerous tax taken by itself presses with undue weight on some class or other; but this is of no moment if the inequalities of each are compensated by those of others and variations in the several parts synchronise. If that condition is satisfied the system may be equitable, though any one part of it regarded alone would be inequitable."[23] Seligman in addition to the faculty principle justified the use of progressive income taxation in order to offset the regressive nature of indirect taxation present in all modern tax systems. A. W. Flux summed up the generally accepted view on incidence as follows: "The criterion sought is that of a just distribution of the burden of the tax system, not of individual taxes." All these views are indications of an incipient "macro" approach towards taxation; and it seems that this development was making the use of the term "effects" in place of "incidence" in tax analysis more apposite. The neo-classicals wanted to study, as Edgeworth said, "all the effects of taxation with which the economist is concerned."[24] They were for that reason inclined to discard the term incidence used in the sense of the initial burden of a tax; or else to enlarge its meaning.

We now go on to examine certain other developments in public finance which began more or less towards the end of the '80s, and have continued since. Towards the end of the '80s and in the early '90s, as the chapters on public finance in Sidgwick's *Principles* and the well-known text book of Bastable show, the scope and the method of

Public Finance underwent a change. It had been the practice in England to pay attention largely to taxes and to borrowing; non-tax sources of revenue or the size and the impact of public expenditure on the economy were not usually discussed in the English writings on finance. There might have been some reason for this neglect; non-tax sources of revenue were not as important in England as they were perhaps in other countries, and the total size of public expenditure had not become large enough to influence the size and the distribution of national income. These new aspects of Public Finance were receiving the attention of the writers in Europe and in America. In Germany financial studies were stimulated by the growing activities of her government, and the method of approach was becoming more statistical on account of the influence of the economists of the "Historical School". These writings and methods influenced the treatise and other writings of Bastable as well as the writings of Seligman. In the age of rising public expenditures and of increasing burden of taxation which began in Europe in the last quarter of the 19th century, such studies were inevitable. Economists in England, for instance Sidgwick, Bastable, and Nicholson, stressed the need to widen the scope of public finance. They urged a discussion of the rise in public expenditure and of its appropriate size and classification and an examination of its effects upon the economy.

English economists increasingly used historical evidence after 1890 to show the trend of public expenditure and of the burden of taxation.[25] The formulation of the principles of public expenditure was, of course, done much later in the light of the growing knowledge of the general principles of economics, for instance by Dalton is his famous neo-classical text book. The rise in public expenditure also led to the consideration of readjustments in the tax system. The possibilities of enlarging the basis of taxation were explored and the principle of ability to pay was discussed in the light of the law of diminishing marginal utility.

The neo-classical economists, on the whole, approved of the rise in public expenditure that was taking place in Britain towards the end of the 19th century. The size of public expenditure, they generally thought, was a result of non-economic considerations, something outside their field. But they were not disturbed by the rise because it was not a very high percentage of national income in the first place, and, as a percentage, not much different from what the public authorities had been used to spending across the decades in the 19th century. In addition they were in sympathy with the rising expenditure on education and social services. There were some economists, however, who objected to the rise in public expenditure after 1900, for instance Bastable and F. W. Hirst, who were more loyal to the Gladstonian principles of finance. Bastable's loyalties to the Gladstonian principles are borne out by his commentaries on a number of British budgets in the *Economic Journal*.[26] He continued to favour smaller budgets, economy in spending, no borrowing, and less progressive taxes on income, and to oppose any application of taxes for non-revenue purposes. The majority of economists on the other hand were concerned with examining the equitable ways and means to raise more revenue. It was necessary to make income taxation progressive to raise more revenue; and we have already referred to the cautious but convincing theoretical support which the economists like Marshall and Edgeworth gave to all schemes of graduation.[27] Apart from this they moved away from the principle that the taxes were for revenue alone. The view that taxes were neutral and should leave people in the same relative positions as they found them was inherent in the classical theory of finance. In the neo-classical period taxes were increasingly regarded as the instruments for the reform of the distribution of wealth and income, for correcting the working of the market economy and for achieving the best use of national resources. Marshall gave a theoretical justification for the belief that the free market and private enterprise fail to secure the best use of resources and yield maximum satisfaction. He pointed out the desirability of using taxes to promote the growth of increasing returns industries and to retard the growth of diminishing returns industries. This idea of using a number of moderate taxes and subsidies to correct maladjustments and to increase the national dividend and social satisfaction, found a more comprehensive treatment in Pigou's *Public Finance*.[28]

The advocates of tariff reform also wanted to use taxes for purposes other than revenue. The whole case of tariffs obviously disregards the concept of a neutral tax system. That was one of the many reasons why Bastable objected to the tariff reformers' demands. He feared that once a departure had been made from the well-tried principle of of taxation for revenue alone, one did not know where the socio-political application of taxation would ultimately end. "It must be remembered that there is another use to which it can be turned," warned Bastable, "namely, the securing of a more equal distribution of wealth. . . . Socio-political taxation is a two-edged instrument and the development of retaliatory and protective duties will inevitably be met by the counter claim for land and property taxation of a drastic character."[29] The majority of neo-classical economists, unlike Bastable, were more agreeable to what they considered the "corrective" use of taxes. Special taxes to penalise monopolies were advocated by Pigou in the '20s, but the general reorientation of the studies of incidence of taxes, and particularly the examination of the incidence of taxes on monopolies, during the '90s and after, reflect the same view.[30] The support for the use of taxes as instruments of policy was a major break from the classical theory of public finance.

There was another strand in the neo-classical thinking on finance: the radical tradition supporting the taxation of inheritances and of rent and other forms of unearned income. This line of thought, on the one hand, was developed in order to secure a more egalitarian distribution of wealth and income, viewed by the period as a good thing in itself, and on the other hand to supply revenue to the state without burden. Bentham, who initiated this tradition, was as much interested as Ricardo, Sismondi or McCulloch in opposing the development of taxation at the cost of the growth of real capital. Such taxes diminished future wealth, and as we have shown, were considered by all economists in the 19th century as harmful. For that very reason, taxes on inheritances and windfall gains, and on unearned incomes were considered to be proper objects for heavier taxation. They agreed very well with the received tradition of not interfering with the natural processes of accumulation, consumption and private enterprise. Under Bentham's[31] and his father's influence, J. S. Mill remained a great advocate of the taxation of inheritances and of unearned incomes. The neo-classical ideas on such taxation followed more or less on the lines laid down by J. S. Mill, but it was comparatively more concerned with the need for caution and conservatism in practice. For instance Marshall was very careful to indicate the danger of pushing the analogy of rent too far and to emphasis its intimate reference to the periods of time one had in view. Though there had always been a tendency in fiscal thought for a more severe taxation of rent and surpluses, the demand for taxing them was very strong in the '80s and the '90s, as is instanced by the single tax movement of Henry George and the views of Hobson on the taxation of the surplus, not required or essential in order to provoke or sustain any economic effort or sacrifice. Edgeworth also does not appear to be wholly disinclined towards these taxes. Marshall's concept of quasi-rent stimulated the demand for the taxation of surpluses; but at the same time his emphasis on the long run and on the difference between rent and quasi-rent,[32] introduced caution. A large part of these surpluses and rents according to Marshall were costs, if only one took a long enough view of economic processes. To the extent any of the long-run requirements of the economy were met by the "surpluses" they became costs and lost their greater taxability. In spite of this caution, support for progressive taxation of inheritances and for certain forms of unearned income taxation grew continuously in the neo-classical period. Considerable interest was shown by neo-classical economists in the scheme for taxing inheritances suggested by Rignano.[33]

The reason why estate duties were preferred to any highly progressive scheme of income taxation was, as we have indicated, that they were comparatively harmless in "announcement effects", and less harmful in their effect on savings and enterprise. Mill and all subsequent economists have been very much concerned with the chief defect of taxing incomes, namely, that such taxation involves a double taxation of savings. But true to the Ricardian tradition in this case, J. S. Mill and roughly speaking the neo-classical economists also believed that fundamentally savings or capital formation were only affected by the weight of taxes viewed in the aggregate on the national income, and not by the burden imposed by a particular tax. As a matter of fact, J. S. Mill moved away from the Ricardian position on the taxation of capital and inheritance . If accumulation was proceeding fast in the economy and this was, as he claimed, a matter for objective appraisal, and was at the time he was writing especially true of wealthy communities like England — Mill thought that income taxes should not be eschewed for the fear of hitting savings twice over.[34] All neo-classical thinking on the taxation of income was keenly aware of, and anxious about this possibility of the double taxation of savings. So much was this the case that the ideal form of taxation according to the majority of them appears to have been one that did not discriminate against saving and did not interfere with the growth or the level of national income. They appear to have supported in theory, a general tax on consumption expenditure, a sort of progressive spendings tax as the most desirable form of taxation. They did not recommend such a tax for administrative reasons as Kaldor has recently pointed out, but probably also for the reason that the existing British income tax did not severely interfere with savings though it had partly changed the source of those savings.[35]

We have indeed moved very far in our notions of public finance as a consequence of the Keynesian Revolution. In the field of finance there has certainly been a revolution. Our methods of analysing public finance as well as the nature of the subjects treated are different. The modern analysis is one of the short run effects of Government taxation, spending and debt policies on income, employment and prices. It has so far largely neglected the neo-classical preoccupation with the effects of fiscal policy on the long run growth and the productivity of the economy. Such problems are, however, beginning to re-enter the discussions of fiscal policy and theory. The questions of maximising national welfare or those of equitable distribution of the tax burden have, as a consequence of the scepticism in the foundation of welfare economics, naturally received little attention. But in this field again Kaldor's book on *Expenditure Tax*, and the Report of the Royal Commission on Taxation of Profits and Income have reopened the old questions of equity in taxation and those of maximising production and welfare. The implications of government spending and taxing, and the effects of a budget surplus, deficit or balance, at various levels of employment and general prices in the economy are much better understood now than in the neo-classical period. The effectiveness of fiscal policy has grown very greatly by the development of national income accounting and statistics. Its significance to correct maladjustments, if used along with appropriate monetary and wage policies, is now better realised. There is a growing tendency to analyse the problems of the tax burden and of the effects of the budget on the different significant variables of the economy statistically, and not deductively as was the general practice with the neo-classicals. The use of indifference curves has introduced greater precision in the analysis of the operation of direct and indirect taxes. To some extent this classification is itself breaking down. Incidence is now studied in the social accounting sense, statistically; but the operation of a tax in the sense of the economic working of the tax, continues to be studied "partially" by deductive reasoning on the lines of the neo-classical practice. Taxes are now willingly used for every conceivable purpose to influence the behaviour of the national economy, or that of the entrepreneurs, trade unions and individuals. All these things are very different from the notions we have been examining. All these things are very different from the notions we have been examining. But what deserves to be observed is that some of these changes had begun in the period that ended in 1928, with the publication of the Colwyn Committee's Report in 1927, and with the publication of Pigou's neo-classical text book in 1928. On the other hand those changes that took place in the notions of public finance, from 1890 to 1928, or even during the years 1890-1915, made the neo-classical public finance different in kind and in spirit from the classical theory of public finance, which to a very large extent was reflected in the Gladstonian budgets. It is not sufficiently realised that the British budgets as well as the fiscal theory after 1890 were breaking away from the Gladstonian frame and the classical theory of finance. Yet paradoxically enough, the continuity of the tradition in fiscal thought had not been broken. What Marshall was doing in his post-war essay, he says, was a restatement of Adam Smith's views on finance in the light of new changes. What Edgeworth and S. Webb were trying to do in their writings on finance was to carry to their logical conclusion, in their own way of course, certain ideas of J. S. Mill.[36] Pigou's neo-classical text book on public finance marks the end of this process.

The Colwyn Committee's Report reflects the same culmination in the field of policy and budgeting by giving its approval to the progressive income tax, death duties, and to the rise of public expenditure that had resulted from the course of history and of ideas from 1890-1927.

II. TAX PROBLEMS

We would now briefly examine some of the more specific problems of public finance on which the *Economic Journal* can throw some light. The main discussion in the field of national finance centred on the question of the progressive taxation of incomes. We have already shown that economists without exception were agreed on the introduction of a measure of progression provided such taxation did not adversely affect the productive efficiency of the economic system. On the actual scale of progression it was realised — quite rightly — that no deduction from fundamental principles or general agreement was possible. For instance, Cassel showed that the question of deciding in what proportion the burden of taxation ought to increase as income rose, should only be considered along with the objects of taxation and it also required a knowledge of "the average necessaries of efficiency" of different grades of income.[37] Cassel also in this article made a very early proposal to draw curves of tax rates, or income tax curves for various countries. He also initiated a discussion on the problem of the proper scale of progression in which Edgeworth, Pigou and other economists participated. Some of the articles which Edgeworth later wrote on taxation, in the *Economic Journal* and elsewhere, were designed to supplement his 1897 articles on the same subject. These articles contain observations which further clarify the neo-classical position on direct taxation: Edgeworth maintained Mill's advanced yet guarded position. He thought that the state should use the instrument of taxation as a means for mitigating the inequality of wealth. But it was not to be used if it acted as a check to the growth of wealth. As a utilitarian he was as desirous as any socialist, he claimed, that means should be taken to diminish those inequalities. He was here thinking of the limitations of inheritance and taxation of unearned increments, so far as these means could be kept free from the dangers to the growth of wealth.[38] While examining particular schemes of graduation, Edgeworth insisted on the need to consider that the taxpayer should not be deprived of the motive to increase his income. "That the rate of taxation," Edgeworth said, "should never be so great as to make it the interest of the taxpayer not to increase his income or capital." "Comparing proposed schemes," he added, "it is not possible to arrange them in order of merit abstractly, without knowing first the end in view — in particular at what points of taxable income (or capital) it is expedient to lighten or tighten taxation — and secondly, the means available — in particular, how many constants may be employed."[39] Chapman was even more critical of basing a particular scheme on progression on the principle of diminishing marginal utility of income.[40] The difficulty of applying the theory of utility to defend any particular scale of progression which involves inter-personal comparisons was also noted by Bastable.[41] Nicholson was opposed to progressive taxation beyond a moderate rate on the ground that it tended to act, "as a differential tax on production on a large scale, and might thus hinder the natural employment of capital in spite of accumulation."[42]

There was never a discussion in the pages of the *Economic Journal* on the abolition of the income tax, but there appeared a number of articles proposing far reaching reforms in its basis and in its administration. In the early years of our period Blunden recommended the adoption of a general property tax;[43] Cassel also did so in his article already referred to in order to give some relief to owners of earned incomes. In the first decade of this century the need for taking into account the family circumstances of the income tax payer, and the problems of depreciation and other allowances was stressed.[44] It was, as we know, the period when income taxation became progressive and the need to tax net income alone was increasingly felt. Along with the growth of income taxation discussions proceeded on the precise nature of capital and income. The *Economic Journal* contains some of the pioneer attempts by Fisher and Cannan at clarifying our notions of Capital and Income.[45] Arguments were put forward for making dependable estimates of profits and of net income.[46] The other significant thing relating to national finance is the discussion of the relation between the state and the railways[47] and the extent to which the surpluses from railways and other public undertakings could be used as revenues. The predominant view in Germany at the time was to consider state railways as an appropriate machinery for indirect taxation, because heavy taxation of the wealthier classes by income taxation or death duties was not thought to be possible. Considerable attention was paid during the period to the principle of fixing railway rates. Important views on this subject were held by Taussig, Pigou and Edgeworth. Taussig touches on this problem in his *Principles*; Pigou in his *Wealth and Welfare* and *Economics of Welfare*; Edgeworth in his famous series of articles on railway rates in the *Economic Journal.* Another important English writer to whom credit should go for reviving the study of railway economics in England was W. M. Acworth. Edgeworth viewed the railways as an extreme instance of an industry involving a very large fixed capital investment. Probably the price policy of railways appeared to him to be the archetype of pricing in all large scale industries enjoying special advantages. He supported, as Taussig did, the price policy based on the value of the service principle, permanently. Pigou, agreeing with Bickerdike, insisted that such a policy should only be temporary; ultimately, he thought, the railways had to work on the cost of service principle. Recent changes in British railway tariffs, in an age of growing competition for the railways from other transport facilities, seem to follow more on the lines indicated by Pigou and Bickerdike, than by Edgeworth.

English economists were not wholly disinclined to use revenue surpluses from state monopolies, such as the Post Office and other municipal undertakings as a source of income for public authorities. In the field of local finance extension of municipal trading was generally recommended for the relief of rates, for instance by the Webbs and Edwin Cannan and, subject to certain conditions, by William Smart.[48] However, the contrary view was also entertained, and administrative and financial problems of running municipal enterprises successfully and economically were not lost sight of.[49] All these discussions have a bearing on the modern problem of the nationalisation of industries and their pricing and financial policies. One can also observe that there was a general desire to run these industries on ordinary business principles.

It was on the subject of local taxation and finance that the *Journal*'s main debates in this field took place. The expenditure and the indebtedness of local authorities had been growing.[50] New sources of local finance had become necessary in view of their growing responsibilities. They were expected to provide water, better sanitation, houses, tramways, electric light and even poor and unemployment relief to the inhabitants within their jurisdiction. There was in addition, the fact of obvious inequalities in the incidence of local taxation from area to area and disparities in the performance of local bodies.[51] In an equity-minded age, all these things called for reform. It may be pointed out that the bulk of the demand for introducing progression and differentiation in the field of national taxation, at any rate before 1906, was for changing the incidence of the tax burden. "From the early '70s," as Bastable says, "the fiscal problem ceased to be one of securing relief to production, and thereby stimulating the growth of wealth; it became one of apportioning taxation so as to secure a fair distribution of the necessary charge."[52] Existing taxes involved no oppressive burdens on any branch of industry and it was hardly possible to devise any new form of taxation which would not have been heavier. The tax reform movement was not so much aimed at raising additional revenue to meet the increased expenditure of the government as to change the incidence of taxation. It was, as another writer pointed out,[53] part and parcel of the great struggle — the rise of the general welfare state — to maintain an equitable balance between private advantage and the greatest good of the greatest number. The need for more revenues had not become very pressing before the South African War and the period of the great liberal reforms in England.

In the field of local finance, however, both the forces making for the reform of the tax basis had long been at work. The reform of local taxation was the subject of a Royal Commission and of a number of memoranda addressed to it by various economists including Marshall, Edgeworth and Cannan. In their memoranda the economists answered a number of questions put to them by the Commission; and the discussion led to the clarification of some of the basic theoretical problems of local as distinguished from national finance. The problems of the real incidence of local rates, of taxes on transfer of property, of taxes on trade profits, and of death duties were among those examined.[54]

But one can observe that complex tax structures, based simultaneously on the principles of ability, benefit and economy (in the sense of considerations of the total effects of taxes on the common interests of the people in the functioning of the economy as a whole), propped up by a more liberal use of loan financing, were coming into favour increasingly in both fields of finance. There was even a trend of thought which sought to approach fiscal problems in the aggregate; the theoretical distinctions between local and national finance were becoming blurred.

The reform of local taxation was proposed on four lines; there was first a demand for rating reform involving a separate taxation of ground rents and of the increase in the land values of urban sites. Secondly, the extension of municipal trading was recommended for raising new revenue and to give relief to the rate payers. The third suggestion was, not to shy away from the growth of debt if it was incurred for productive purposes. The fourth suggestion was to develop a system of subventions and grants-in-aid from central revenues for local authorities in view of the onerous and the essentially national nature of some of their new obligations and services.

Akin to the problem of the financing of local authorities in England, was the problem of an equitable readjustment of the Anglo-Irish financial relationship. Writings bearing on it in the *Economic Journal* provide an early discussion of over taxation and taxable capacity.[55] They also throw some light on the problems of Federal Finance. Of special interest is a brief note by J. M. Keynes which raises some of the fundamental problems of federal finance. In a Federation consisting of states in different stages of development, Keynes pointed out, revenue for the Central Government could not be equitably derived from indirect taxes like Customs (which had been the usual practice with federations so far), while leaving direct taxes and inheritance taxes to the states. It could not come from contributions by the constitutent states either. Fixing these contributions was difficult; to vary them as need arose, was still more difficult. But to an imperial tax on incomes and inheritances, Keynes saw no such objection. Such a tax had far less need to adjust itself to varying local conditions than an indirect tax. It was admirably elastic and its yield was on the whole as good an automatic test as one could hope for the taxable capacity of its separate parts. "It is to be hoped," Keynes says, "therefore, that when the time comes for a final settlement, the policy of retaining for the Central Government the whole control and the whole or some specified yield of the taxes on incomes and inheritances will receive serious consideration. It would prove, I believe, a sound foundation for federal finance not only as between Ireland and Great Britain but in the event of federalisation . . . of other parts of the Empire." Modern federations have come to depend increasingly on direct taxes (though in some federations the trend seems to have been reversed in recent decades). At any rate a joint control of direct taxes and their partial disbursement amongst constituent units of the federation, have followed on lines more or less envisaged by Keynes.[56]

The problems of rating reform led to a good deal of discussion. They stimulated an analysis of the incidence and effects of urban rates, over which there appears to have been a little disagreement between the views of Marshall and Edgeworth.[57] They stimulated writings on the taxation of land values and on the incidence of such taxation. The administrative question of land valuation, involved in any scheme of land value taxation, was also discussed. The more important contributions to the discussion were made by Pigou, Bickerdike and Stamp.

The importance of Bickerdike's paper lies in exploring the basis of the policy of taxing land values with reference to the effects of such a policy on the efficiency of production. Are land values to be taxed, he asked, solely with a view to transferring some wealth from private persons to the state, without examining the effects of such a policy on the production of wealth? He also examined the incidence of a tax on the future increments of value and argued that such a tax was no different, as regards the question of incidence and of equity, from a simple tax on existing land values. " The price at which anyone buys land is very largely influenced by expectations as to the future; you cannot therefore," Bickerdike argued, " tax the increment without depreciating the present value, to the extent of the present value of the yield of the future tax."[58] What is striking about this statement is the use in it of a value theory which takes into account expectations, introducing into studies of incidence a new element. On the more general problem of inter-personal comparison of loss and gain which always comes up whenever we consider the effects of taxes falling primarily on certain classes, Bickerdike's view was that even though as a result of such action certain classes might suffer, this need not necessarily be so. Taxation, in Bickerdike's opinion, was not a mere question of transferring wealth from certain individuals to the state or to certain other individuals. The primary purpose was " the removal of conditions which hinder the most effective use of the national productive powers." While judging the propriety or otherwise of putting up a tax or of removing a tax, he would have liked the state to consider any ulterior beneficial or harmful effects upon production of such a policy. National gains and losses were to be compared. He wrote: " The gain to the state from the removal of conditions which hinder the most effective use of national energies, is of a continuous and cumulative kind having reactions in all sorts of ways which cannot be clearly foreseen, so that no set of people can be regarded as necessarily losing anything in the long run." Bickerdike also makes use in this article of his fundamental welfare principle of state interference, to justify a tax on land value for local purposes. He emphasises that "anti-co-operative conditions" of production and consumption do occur in large towns, and individual self-interest fails to lead to maximum satisfaction. The possibility of these conditions, he pointed out, had been recognised by theoretical writers for a number of years — to some extent by Marshall, and more fully by Mr. Henry Cunynghame and Professors Edgeworth, Pigou and Chapman. " He only differed from them," he says, " in regarding the recognition of these conditions as of urgent political importance." Progress depended largely, Bickerdike argued, " on a more critical examination of the working of self-interest in relation to the interest of society with a view to action in cases where they do not harmonise." For the best development of urban life the taxation of land values, in his judgment, was desirable.[59]

Pigou and Stamp favoured the taxation of any unearned and unexpected gains in land values only. Both disagreed with Bickerdike; but also differed between themselves. Pigou would have preferred taxation of all windfalls, with an interest allowance on any investment in land before taxing gains in land values. Stamp would have extended the income tax to cover this class of annual interest element hitherto free; and would have had another "true tax upon windfalls".

Apart from these problems of tax reform, there appeared some interesting articles of practical interest on the relations between fiscal policy and the rate of interest and prospects of price movements. The years from 1890 to 1915, were rich in studies of the relation between the rate of interest and general prices. Lehfeldt, writing against this background, in one of his articles attempted to find out the conditions in which a government should go in for raising loans. In another, he discussed the probable consequences of the huge financial transaction which would be involved in the State taking over the railways. The financial success or failure of railway nationalisation, Lehfeldt argued, would depend chiefly on the course of the rate of interest, as this would affect both earnings and expenses.[60] Causes of variation in the rate of interest were, according to him, the "degree of security offered by the borrower, the rise and fall of prices, and the demand for loans as compared with the supply of loanable capital." So far as one could look into the future, there was almost nothing, in Lehfeldt's judgment, to encourage the view that railway nationalisation would be a good bargain financially. Therefore the various expectations, that railway nationalisation would bring a large subsidy to the national revenue, would make for cheaper rates and ensure very favourable terms of employment for the railway workers, on the strength of which nationalisation was at that time being urged in England, were not likely to be fulfilled.

During the war years the problems of war finance naturally received the attention of writers in the *Economic Journal.* Two of the articles that appeared are remarkable. They were by Bickerdike and Pethick Lawrence;[61] and between them they provide a good background for Keynes's *How to Pay for the War.*

"Nations at War," Bickerdike argued, "resemble towns in a state of siege." The economic problems were all problems of the short period, and arguments depending on how things would work out in the long run were not relevant. That perhaps was the reason why economic science, which chiefly has been concerned with the long run, had so little to say on the problem of war. Maximum effort was needed, which, Bickerdike suggested, could be numerically represented by subtracting from the national income an amount necessary to maintain a certain unavoidable standard of living for the combatant and non-combatant population. Allowance should also be made for that part of the national income which consisted of services, and could be dispensed with, but which could not be converted into the production of either war goods or necessaries. One burden involved in fighting a war, according to Bickerdike, was a certain diminution in the "normal rate of increase of wealth", due to an inevitable distortion of the forms of investment. He argued that there was a theoretical justification for not raising all the necessary money by means of heavy taxation of incomes alone and recommended rationing and indirect taxes on certain selected forms of expenditure. "What is important to remember in all such cases, is that revenue alone is not the objective. The diversion of labour and capital is also an object, even though such diversion sacrifices revenue." This was, according to him, the fundamental difference between the ordinary principles of taxation and those applicable to the temporary exigencies of war. He also suggested taxation of imports of all things not strictly necessary in order to minimise the effects of scarcity of actual capital; and recommended the modification of the tax system in "the direction of making the income tax an expenditure tax."

Points of contact between Bickerdike and N. Kaldor appear to be numerous; yet another example is provided here. "It is not suggested that savings should be exempted. That would be neither practicable nor desirable," Bickerdike argued, "but savings devoted to certain purposes of special public utility might be exempted from income tax . . . . it is not a matter of indifference from the national point of view how money is invested."

Pethick Lawrence's article is similar in perspective but more broadly based. Pethick Lawrence disagreed with Bickerdike on the role of borrowing in war finance. His article foreshadows the macro-economics of later years. Here is an illustration: "There are only six ways that military consumption can be increased: (i) by increasing imports, (ii) by decreasing exports, (iii) by increasing total productive output, (iv) by decreasing internal capital repairs and additions to capital, (v) by depleting the stock, and (vi) by curtailing civil consumption."[62]

NOTES

1 See the note on books in earlier editions of Dalton's *Public Finance* and the article, "Some Recent Contributions to the Study of Public Finance", in *Economica*, 1921.

2 See the chapter on public finance in James Mill's *Elements*, p. 246.

3 For an account of causes leading to the period of Gladstonian finance, and for Gladstone's failure to abolish income tax, see J. F. Rees, *A Short Financial History of England,* 1815—1918, London 1921. Also see Mallet's *British Budgets.* For Gladstonian finance see Gladstone's "Budget Statements"; Northcoate, *Twenty Years of Financial Policy,* 1842—1861, London 1862; F. W. Hirst, "Gladstone" *Economic Journal,* 1898; Giffen, *Economic Enquiries and Studies,* Vol. 1 and 2; Schumpeter, *History of Economic Analysis*; and H. O. Meredith's article, "Rates and Taxes", in *Economic Journal,* September 1939.

4 "The permanent employment of this form of taxation is intimately connected with the substantial elimination of protection, which was one of Gladstone's great achievements." Bastable, *Economic Journal,* 1907. Also see, Blunden, "The Position and Function of the Income Taxation in the British Tax System", *Economic Journal,* 1892.

5 See Chapter viii, Vol. 1, of Ricardo's Works, (Sraffa Edition).

6 See Bastable's *Public Finance* (1st Ed., 1892, p. 374). Bastable has interesting comments to make on Smith's maxims also.

7 Unfortunately only a very small portion of this essay has been included in the *Memorials of A. Marshall* edited by Pigou. The whole of this essay should be made more accessible, because it is the only place, I believe, apart from the Official Papers, where Marshall analyses the operation of specific taxes on the economy after the manner of the classical economists.

8 See J. S. Mill's *Principles,* chapters on Public Finance.

9 See Sidgwick, *Principles,* chapters on public finance, and Edgeworth, "The Pure Theory of Taxation," *Economic Journal,* 1897.

10 Edgeworth, *Papers Relating to Political Economy,* Vol. ii, p. 154. There are many passages of similar import in Edgeworth's writings on finance.

11 *Official Papers,* p. 339.

"The duty of each generation to those which are to follow is as urgent as that of the rich to surrender a more than proportionate contribution from their income to the national purse. Ethical considerations and those of high policy make alike for the preservation of capital." Marshall quoted by Edgeworth in his review of Dawson's *After-War Problems, Economic Journal,* 1917, p. 408.

"There is the danger," says Edgeworth at another place (*Papers,* II, p. 130—131) "of driving the rich, or at least their riches from the country and checking accumulation; there is the danger of awakening the predatory instinct of the poor and precipitating the revolution. When tempered by ordinary prudence the suggested rules of equity deduced from the principles of least sacrifice are not in practice very different from the received rules which are deduced from the principles of equal sacrifice."

12 *Economic Journal,* December 1901.

13 "The Pure Theory of Taxation", *Economic Journal,* 1897.

14 See U. K. Hicks: "The Terminology of Tax Analysis", *Economic Journal,* 1946.

15 See Cournot's *Theory of Wealth,* the chapter on taxes, (Bacon's translation); and the sections on incidence in Jenkin's *Essays,* London School of Economics reprint.

16 *Principles,* Eighth Edition, p. 413.
17 Edgeworth's *Papers,* Vol. II, p. 66—; and Dalton's *Public Finance,* for the type of " Incidence Analysis " of the early 20s.
18 Edgeworth, " Pure Theory of Taxation ", *Economic Journal,* 1897.
19 See Carver, " The Incidence of Costs ", *Economic Journal,* December 1924. One should compare this article with Hotelling's article, " The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates ", in *Econometrica,* July 1938.
20 See Mrs. Hicks's article, *Economic Journal,* 1946. The other books mentioned on this page are: Shirras and Rostas, *The Burden of British Taxation,* and Prof. and Mrs. Hicks's book on the *Burden of Local Rates.* For an early attempt at the statistical estimate of the tax burden in England, see Sanger, " Is the English System of Taxation Fair ", in *Economic Journal,* 1899.
21 See the *Report of the Colwyn Committee;* and the debate on this Report in the *Economic Journal,* 1927 and 1928; also see Seligman's *Studies in Finance* and " The Colwyn Committee and the Incidence of Income Tax ", *Quarterly Journal of Economics,* August 1928.
22 See for instance Joseph, " The Excess Burden of Indirect Taxation ", *Review of Economic Studies,* June 1939: Wald, " The Classical Indictment of Indirect Taxation ", *Quarterly Journal of Economics,* August 1945; Henderson, " The Case for Indirect Taxation ", *Economic Journal,* December 1948; Little, " Direct Versus Indirect Taxes ", *Economic Journal,* September 1951. The discussions in Marshall's Principles are on p. 467. (8th Ed.). Also see Hicks, *Value and Capital,* pp. 40—41, and Walker, " The Direct and Indirect Tax Problem; 15 years of Controversy", *Public Finance,* Vol. x No. 2.
23 Marshall in his memorandum on " Imperial and Local Taxes " quoted in the *Redistribution of Income through Public Finance* in 1937, by Barna, p. 2, footnote 6; also see Seligman's *Essays on Taxation,* and Flux, *Economic Principles,* Chapters xix and xx. The quotation is on p. xxi.
24 *Papers,* Vol. ii, p. 151.
25 Sanger attempted to find the *per capita* burden of taxation on large classes of the community in his article in *Economic Journal,* 1899.

A similar attempt was made by Lord Samuel in his article in the *Journal of the Royal Statistical Society,* in 1919. More recent attempts have been made by Shirras, Rostas, Prof. and Mrs. Hicks.

Also see D. M. Sandrel, " The Burden of Taxation on the Various Classes of the Community ", *Journal of the Royal Statistical Society,* 1931, and the *Report of the Colwyn Committee,* 1926.
26 See Bastable's comments on the 1898 and other subsequent budgets in the *Economic Journal;* for Hirst's apprehension of the rising public expenditure see the relevant chapters in his edition of Porter's *Progress of the Nation.* Another writer to comment regularly on the budgets after 1898 was Giffen; see his " City Notes " in the *Economic Journal.* He tried to show by an examination of the English, South African, Russian, and Japanese

economies during the Boer War and during the Russo-Japanese war, that these economies did not suffer any adverse consequences on account of rising public expenditure. It seems that it was not uncommon to support a particular scheme of public expenditure, or even the total volume of it, by expressing them as percentages of national income and by claiming that that was not very far from what had been customary. Even Marshall did so. Of course the statistical basis of all such statements was very rough.

27 See Shehab, *Progressive Taxation,* for a detailed account of this development.

28 See Pigou's *A Study of Public Finance* (1928), Part II, Chap. viii; and *The Economics of Welfare* (the first edition). Bickerdike's theory of incipient taxes should be considered an instance of this general development (see his article, *Economic Journal,* 1906).

29 See the chapter on "International Trade"; Balfour was the chief spokesman of this point of view. See Bastable's article, "The Rule of Taxation for Revenue as a Canon of Public Finance". *Economic Journal,* 1903.

30 See Edgeworth's "Pure Theory of Taxation", *Economic Journal,* 1897. The taxation of monopolists and monopolised goods, is not to be confounded with the taxation by monopoly. Considerable attention was given by the neo-classicals to the growing practice of raising revenue by means of state-owned economic undertaking. See Bastable, "Taxation Through Monopoly", *Economic Journal,* 1891.

31 For Bentham's very important contributions to finance see the relevant sections of his Works edited by W. Stark; and Richard Jones, op. cit., p. 102—; for McCulloch's emphasis on the total effect of taxation on the public interests, by which he means probably, the size of future wealth, see Jones's book, p. 117—.

32 See, "Some Aspects of the Theory of Rent", an article by L. L. Price, *Economic Journal,* 1891; Hobson, *Taxation and the New State,* Edgeworth's articles on "Urban Rates" and for the Fabian support to the taxation of unearned incomes, see S. Webb's article "Difficulties of Individualism", *Economic Journal,* 1891. There was a keen interest shown by English economists such as Pigou, Dalton, Sir Joshua Stamp and others in Rignano's Scheme.

33 For this interest in Rignano's scheme, see "Some Administrative Aspects of the Rignano Scheme of Inheritance Taxation", an article by H. C. Scott, *Journal of the Royal Statistical Society,* March, 1926; Gerbino's article in *Economic Journal,* 1925; Dalton's *Inequality of Income* (1920) and *Public Finance* (1923); Pigou's *Economics of Welfare* (1920); Shirras, *Public Finance* (1924); Stamp, *The Social Significance of Death Duties,* 1925 (adapted from Rignano's Italian book). Bickerdike, in the course of a review (*Economic Journal,* March 1906), commended the scheme to be tried experimentally in a mild form and thought that it supplied "a common meeting ground for collectivists and those who believe in individual effort and the motives which prompt that effort." Rignano has profoundly influenced Dalton and perhaps the British Labour Party also.

34 See Mill's, *Principles,* Ashley Edition, 1920, pp. 821—822.

35 See Kaldor's *Expenditure Tax,* p. 78, and Pigou's *Economics of Welfare* for a neo-classical analysis of the Expenditure Tax. (1920 ed.).

36 For Webb's ideas on finance, see his article in the *Economic Journal,* " Difficulties of Individualism ", 1891; his preface to Richard Jones's book, op. cit., and his book on Grant-in-Aid. For a student of theoretical developments in finance, Webb would appear to be in agreement with the common notions of the period. On Colwyn Committee see Robertson, " The Colwyn Committee, the Income Tax and the Price Level, *Economic Journal,* Vol. xxvii, Dec. 1927.

37 For Cassel's views, see " The Theory of Progressive Taxation ", *Economic Journal,* 1901.

38 See Edgeworth's *Papers,* Vol. II, p. 234—, 258 and 260—.

39 See Edgeworth, op. cit., p. 238 and 258.

40 See Chapman, " The Utility of Income and Progressive Taxation ", *Economic Journal,* 1913.

41 See Bastable's *Public Finance.*

42 See Nicholson, *Principles,* Vol. iii, pp. 278—279.

43 " A New Property Tax ", *Economic Journal,* Vol. vii; " The Position and Function of the Income Tax in the British Fiscal System," *Economic Journal,* Vol i; Also see " Reform of Income Tax and Estate Duty" by D. White *Economic Journal,* Sept. 1911.

44 See P. D. Leake: " Income Taxation and Depreciation ", *Economic Journal,* 1909, F. O. Lyons " Depreciation, etc ", *Economic Journal,* 1909. Lyons wrote: " We feel that the need for equitable and just methods of assessing income tax is constantly becoming more pronounced."

45 See " The Role of Capital in Economic Theory " *Economic Journal,* Vol. vii; " Senses of Capital ", Vol. vii; " What is Capital? " Vol. vi—all by Fisher. Also see Marshall's " Distribution and Exchange " *Economic Journal,* Vol. viii, partly provoked by Fisher's comments on the English notions of " Capital, and What is Capital " by Cannan, in *Economic Journal,* Vol. vii.

46 Ashley: " The Statistical Measurement of Profit ", *Economic Journal,* Vol. xx; Sanger: " The Legal View of Profits ", *Economic Journal,* Vol. xiii.

47 See Acworth, " Railway Economics ", *Economic Journal,* Vol. ii, p. 392. " The Theory of Railway Rates " *Economic Journal,* Vol. vii, p. 317—, Prof. Cohn and " State Railway Ownership in England ", *Economic Journal,* Vol. xviii, Professor Ripley on American Railways; *Economic Journal,* Vol. xxv; Edgeworth, " Contributions to the Theory of Railway Rates ", *Economic Journal,* Vols. xxi, xxii and xxiii; Bickerdike, " Monopoly and Differential Prices " *Economic Journal,* Vol. xxi (the only contribution of Bickerdike which has been mentioned by Pigou in the course of his writings); and Lehfeldt, " Finance of Railway Nationalisation in Great Britain ", *Economic Journal,* Vol. xxiii. For a brief discussion of Pigou and Edgeworth's disagreement, see Edgeworth's articles.

48 There are a large number of articles on this theme in the *Economic Journal.* The important ones are: Cannan: " Ought Municipal Enterprises be Allowed to Yield a Profit? " *Economic Journal,* Vol. x; Smart: " The Municipal Work and Finance of

Glasgow", *Economic Journal,* Vol. v and "Municipal Industries and the Rate Payer", *Economic Journal,* Vol. xi, and Bastable, "Taxation Through Monopoly", *Economic Journal,* 1891.

49 See specially, S. H. Turner, "Depreciation and Sinking Funds in Municipal Undertakings", *Economic Journal,* Vol. xiv; "Financial Aspects of Municipal Undertakings which Extend Beyond the Municipal Boundaries", *Economic Journal,* Vol. xv.

50 See the "Financial Control of Local Authorities" by Percy Ashley; *Economic Journal,* Vol. xii and "The Report of the Local Taxation Commission", a review article, by Sanger, *Economic Journal,* 1901.

51 See Cannan: "The Financial Relations between English Localities", *Economic Journal,* 1903; and his *History of the Local Rates.*

52 See, "The New Budget and the Principles of Financial Policy", *Economic Journal,* 1899; also see the comments on the new budgets in the *Economic Journal,* 1908 and 1909.

53 See an extremely interesting article by C. C. Plehn, on the "Nature and Causes of the Tax Reform Movement in the United States", *Economic Journal,* 1903. Plehn points out that what was happening in the States was happening in all the industrial countries of Western Europe. New sources of income had emerged and equity demanded that they were taxed. Finance was one of the most important problems of the incipient Welfare State, which was expected to take on new responsibilities for the community. Though the term "Welfare State" did not come into general use until very recently, some of these functions of providing social security and insurance were those with which modern welfare states are concerned. On this point, see Sidney Fine, *Laissez Faire and the General Welfare State,* London 1956. Also see, Sanger's article, "Is the English System of Taxation Fair", *Economic Journal,* 1899.

54 For the questions put to economists by the Royal Commission, see Edgeworth's *Papers,* Vol. ii, p. 126—. Edgeworth's answers are on p. 127—, followed by articles in the *Economic Journal,* "Incidence of Urban Rates", 1900; and "Recent Schemes for Rating Land Values" in *Economic Journal,* 1906. For Marshall's answers see *Official Papers,* and for Cannan's, see his article in *Economic Journal,* 1901.

55 See for instance Bastable's writings in the *Economic Journal,* on the Irish questions.

56 In the course of his review of the Reports on Irish Finance, *Economic Journal,* 1912, p. 496.

57 See Bickerdike: "Taxation of Site Values". *Economic Journal,* 1902; Edgeworth: "Incidence of Urban Rates", *Economic Journal,* 1900, and "Recent Schemes for Rating Urban Land Values", *Economic Journal,* March 1906. Edgeworth was in general agreement with the doctrine of unearned increment as taught by Mill, not as caricatured by Henry George. See p. 68, *Economic Journal* 1906. In this article we also find Edgeworth making use of statistical evidence to make a point. Edgeworth though theoretically in favour of the taxation of land values is not particularly keen on a "peculiar taxation of site value" in practice, also see Cannan: "The Proposed Relief of Buildings

from Local Rates", *Economic Journal,* 1907; L. Darwin: "The Taxation of Site Values with reference to the Distribution of Population", *Economic Journal,* 1907, and Harper: "Will the Rating of Land Values Increase Urban Congestion?" *Economic Journal* 1908. Bastable seems to be rather critical of taxing unearned elements in capital value. See his article: "Taxation of Ground Rent", *Economic Journal,* 1893 where he says: "The supposed store of wealth due to no one's exertion and ready for public use is to a great extent an illusion. Most of it is gradually distributed amongst the members of the community; a great deal of it is due to foresight and energy on the part of its present holders."

58 See Bickerdike's articles, in *Economic Journal,* 1902 and 1912; Stamp's article on Land Valuation, *Economic Journal,* 1915; Pigou's "Policy of Land Taxation", *Economic Journal,* 1906.

59 The quotations are from Bickerdike's article in *Economic Journal,* 1912. Also see Stamp's articles in *Economic Journal,* 1913 and 1915.

60 See "Public Loans in the Light of the Modern Theory of Interest", *Economic Journal,* March 1912; and "Finance of Railway Nationalisation", *Economic Journal,* September, 1913.

61 See, Bickerdike: "On Paying for War by Loans", *Economic Journal,* September, 1915; and Pethick Lawrence, "War Economics", December 1915.
A number of articles dealing with the different aspects of the war economy appeared in the *Economic Journal* 1915.

62 Developments in the tax systems of other countries also interested the *Economic Journal.* Changes in the income tax and in the field of local taxation abroad and the effects of any abnormal turns in the financial policies of other countries on their economies were also examined. See for instance, "The Financial Relations of the Dominion of Canada and the Provinces", *Economic Journal,* 1905; "Reform of Direct Taxation in Austria", *Economic Journal,* 1898; "Local Taxation in Germany", *Economic Journal,* 1901; "Income Tax in Holland", 1907; "Taxing of Unearned Increment in Germany" 1911; "Graduated Income Tax Abroad", 1914; "Financial Situation in Japan", 1905; in Russia, 1905; in Italy, 1915; "Tax Reform Movement in U.S.A.", 1910.
Some of the important books reviewed were: Seligman's many books on finance (listed in the Bibliography); Bastable, *Public Finance;* Cannan, *History of Local Rates* (all the different editions of these books were reviewed), Giffen *Economic Enquiries* (1904); Nitti's *Principi* (1903); Dodd, *Taxation of Land Values in Australasia* (1904); R. M. Hurd, *The Principle of City Values* (1904) (an extremely interesting review); Weston, *The Principle of Justice in Taxation* (1905); Armitage-Smith, *Principles and Methods of Taxation* (1906); Etienne Martin, *Historie Financière et Economique de L'Angleterre* (1066-1902) 1913; Cohn, *Science of Finance,* 1896; and Adams, *The Science of Finance,* 1899.

Chapter VIII

SUMMARY AND CONCLUSIONS

Summary and Conclusions

We set out to examine the development of thought in four main branches of economics, namely, international trade, the labour question, the economic problems posed by the presence of poverty, unemployment and inequality, and public finance. In the four main chapters (IV-VII) of this book, we have attempted to survey the contribution of the neo-classical economists (that is, Marshall and his younger contemporaries) to these branches of economics, particularly with reference to their contribution in the first twenty-five volumes of the *Economic Journal*. We have indicated in the first three chapters, the theoretical background against which neo-classical economics developed (Chapter I); its preoccupations from 1891-1915 (Chapter II); and some of its general characteristics, for instance the progress in the field of the theory of value after Marshall (Chapter III).

A general drift of the four main chapters that follow the three introductory ones, is suggested in the introductions with which these chapters (IV-VII) begin. But it would, perhaps, be worth while to bring together by way of conclusion some of the main features of these chapters, and of neo-classical economics in general.

The most conspicuous feature of the contributions in the *Economic Journal* from 1891 to 1915 is the interest of the British economists in contemporary economic problems. They were interested in all types of projects for economic and social reform and they examined a wide range of developments in other countries which had a bearing on these domestic issues. By far the most important problem before them was the labour question. It was primarily a problem of promoting industrial peace and of stopping strikes; but related to this were the more general problems of low wages, the low standard of living of the poor, and unemployment. This naturally led the neo-classical economists to their second main interest, that of public finance. Their third main interest appears to have been a re-examination of the case for tariffs as an instrument of national policy.

The influence of Marshallian economics with its emphasis on a realistic and scientific analysis of economic phenomena on the one hand, and on the urgency of reform on the other, pervades most of the writings during the period. This influence is clearly evident in the first twenty-five volumes of the *Economic Journal.* The developments in the more theoretical fields of the theory of value after 1890 also followed the line laid down or indicated by Marshall in his *Principles of Economics.* The younger contemporaries of Marshall made an increasing use of the tools of analysis forged by him. They made a successful use of his partial analysis technique to explore further the process of price formation in the different commodity and factor markets. They made use of concepts like elasticity and national dividend and of his geometrical diagrams. Some of his contemporaries, in spite of Marshall's discouragement and disapproval, made a more extended use of mathematical reasoning. A few of them even attempted empirical and econometrical work; but considering the great interest of neo-classical economists in matters of social reform, it appears to be a rather limited achievement.

What is the main trend of development in the theory of international trade after 1890? One might say, briefly, that the problem of international values was analysed on the lines of static value theory, and the theory of international trade was restated. One result of this development was that faith in the theoretical case for free trade was undermined. As a result of the restatement of the theory of international trade by Edgeworth and Cunynghame it became possible to present a case for protection even for industrially advanced nations; and one instance of this was Bickerdike's justification of "incipient taxes". Some of the more tacit assumptions of the theory were more clearly grasped. However, these theoretical developments did not in any way weaken the faith of the majority of British economists in the policy of free trade as the best one for England and other industrially advanced countries. They were of course willing to support the case for the protection of "infant industries"; but in the light of the political and moral issues involved, this support was hesitant and cautious. The majority of British economists stood by the liberal tradition during the great debate on Tariff Reform and Imperial Preference. Although the tariff reform movement failed, it led to some very interesting statistical work.

The neo-classical economists were deeply concerned with the various aspects of poverty. Poverty at that time affected a fairly large section of the British population; and the economists of the period attempted to measure it and to unravel the complex causes making for the low standard of life for so many people. Poverty was clearly due to low wages — but it was also found to be due to old age and unemployment. The view that had prevailed in England that poverty and unemployment were the consequence of the personal and moral faults of the poor and the unemployed themselves — the view underlying the "New Poor Law" of the 1830s, underwent a change after 1890. Poverty and unemployment were increasingly looked upon as the consequences of economic and non-economic causes over which the labourer had little control. This realisation of the helplessness of the labourer against the economic and institutional causes of poverty was a fact of considerable significance. It led economists to support old age pensions and unemployment insurance as desirable forms of state assistance. They also gave their support to the trade union movement, because they believed that a strong trade union movement was a pre-condition for the establishment of competitive wages and of industrial peace. They generally believed that wages should never, and could never, without jeopardizing the interests of other groups of workers or those of the community as a whole, go beyond the level of what they thought to be competitive wages. Although they supported collective wage bargaining to maintain, or under changing circumstances, to modify, wages without state interference, they did not want organised labour and organised capital to land the community in trouble by resort to serious strikes and lockouts. Their insistence on the peaceful settlement of wage disputes was such that some of them would have easily lent support to schemes of compulsory arbitration and state intervention to stop strikes in vital industries. But they were, generally speaking, disposed to grant the organised worker the freedom to strike as part of his democratic rights. However, for certain sections of the labour market, where trade unions were weak and ineffective, the neo-classical economists finally came to support minimum wage legislation. But on the whole they wanted the state to do no more than create conditions of collective peaceful and equitable wage bargaining and to act as a mediator if need arose. It was in this climate of opinion that sectional collective wage bargaining had been growing before the first world war; and of course, part of the success of this experiment was due to the very favourable institutional and trade conditions of those years. The result was that some of the difficulties which attend such sectional wage bargaining under the unfavourable conditions of full employment, inflation and highly competitive foreign trade went unnoticed. The acceptance of the gold standard provided a protection against the inherent inflationary pressure of such bargaining, and this interfered with a clear perception of its economic implications. The neo-classical approach to the problem of what we now call "industrial relations" was through their examination of the labour market; in this respect the modern approach — which somewhat emphasises the non-economic elements in the establishment of the wage contract — is very different. But one must not forget that wages are factor prices; and it is impossible to dissociate them completely from the other significant variables in the economy.

The neo-classical economists saw clearly the relation between poverty, unemployment and the trade cycle. They were constantly concerned with the causes of unemployment and of industrial fluctuations and, even though they were not completely successful, they went a long way towards forestalling the subsequent developments in the field of the theory of unemployment. The neo-classicals, with the exception of Hobson, did not consider unemployment as anything more than technological and frictional. The intermediate stage in the development of the neo-classical theory was reached by the publication of Beveridge's book. The problem of unemployment was here presented as a problem of industry, and ways and means were suggested to increase the mobility of labour, the lack of which Beveridge considered to be the main cause of unemployment. There were a number of other writers who came very near to this explanation of unemployment even before Beveridge; and it may well be that all these views were based upon the experience of unemployment in the London docks and in the building industry. Pigou's

Wealth and Welfare was the culmination of this attempt to explain the fluctuations in employment. After 1909, industrial fluctuations were increasingly analysed as the chief cause of the unsteadiness in unemployment. In some of these studies, such as those undertaken by Pigou, Robertson and Bickerdike, one can see the beginnings of a new approach. This new approach suggested an explanation of industrial fluctuations in terms of the unsteadiness of the demand for investment goods — a factor attributable to the nature of these goods.

In the course of these studies of labour and poverty problems — or as a result of them — it was increasingly realised that the markets did not necessarily lead to the maximum satisfaction of the consumer under the conditions of *laissez faire*. Nor did they lead to the maximum size of the national dividend and to equity in distribution. The beginning of this critical and cautious approach to *laissez faire* could be seen in Marshall's *Principles;* but as we move on, the neo-classical appreciation of the lapses of the free functioning economy from the norms of competitive behaviour continues to grow. For the same reason the support given to the extensions of state activity in order to bring about better patterns of production, distribution and consumption continued to increase. The distribution brought about by market forces in the absence of perfect competition was considered to be unjust and imperfect; and this provided a theoretical justification for a limited measure of remedial action by the state.

If the given conditions did not permit the laws of perfect competition to prevail, the free markets failed to assure the optimal use of a nation's resources and failed to secure maximum satisfaction. To make the economy conform to the hypothetical behaviour patterns, only possible under the conditions of free and perfect competition, became for the neo-classical economists an objective to be pursued consciously. They thus pointed towards the need for state action in a number of ways for the purpose of redistribution and for better allocation of resources. If any further attempt at state interference or redistribution seemed likely to do serious injury to the size and stability of the National Dividend, through damaging the incentives to work and to save, then it was not wise in the view of the neo-classical economists to press such policies beyond that point.

The neo-classical economists' approach to tax analysis was naturally related to their theory of value and to their demand theory. On the whole they favoured a more progressive tax system. They preferred direct taxes, and indirect taxes on commodities of inelastic demand, and were favourably inclined to indirect taxes on alcohol, tobacco and what in those days would have been looked upon as luxuries. One can also see an increasing tendency amongst them to judge the equity or otherwise of the tax system as a whole. The effect of individual taxes, they thought, was likely to be off-set by other taxes in the tax structure. From a short-term point of view, their objective appears to have been to maximise the consumers' surplus or the total satisfaction in the nation from consumption. They would not have objected to the application of tax policy for realising that end. From the long-term point of view, however, their objective seems to have been the reduction of poverty and inequality — the promotion of what might be termed "the good life". But this objective was not the only one that they recognised. They were equally aware of the need to encourage saving and private enterprise. Considerations of the productive efficiency of the economy and the desire to keep the national income at a high level interested them equally. In matters of public finance they moved a long way from the notions underlying "Gladstonian finance". They did not think that taxes had no other function than that of raising revenue; they were prepared to use taxes to a certain extent as instruments of policy.

In neo-classical analysis of the incidence and effects of taxes, the term incidence was considered to be inadequate as an instrument of tax analysis. Some wanted to discard the term altogether; and some wanted to retain the term, but to extend its meaning. The emphasis in tax analysis seems to have been on the direct as well as indirect effects of taxation in the long and in the short period.

The influence of Marshallian economics appears to have been all pervasive; even though some people differed from Marshall. It is not inappropriate to describe the period of British economics from 1890 to 1915 as the Marshallian Age. However, one can also see the course of economic thought moving in the direction of the economics of the 1930s.

We have attempted to bring out the character and the significance of neo-classical economics and of the first twenty-five volumes of the *Economic Journal* in the history of economic thought. We have in some places tried to show their relation to more recent developments in corresponding fields of economics. We have also tried to throw some light on writers such as Booth, Cunynghame, Cannan, Bastable, the Webbs, Sanger, Price, Ashley and Bickerdike, who were among the most outstanding writers in the first forty volumes of the *Economic Journal*. We need not emphasise the influence of Edgeworth and Pigou for the subsequent development of economics; but we should also remember the contribution made to the development of economics by the other less well-known writers.

It is one of the functions of a historian of thought to refresh the memory of his contemporaries and indicate what they owe to the many writers of an earlier age. The milieu in which the neo-classical economists lived and wrote has vanished, but economic doctrines of earlier epochs have often shown a strange power of recuperation in an appropriate environment. In addition, as Edgeworth said, tracing the affiliation of ideas in the progress of science corrects our estimates of authority, and reduces in general the extravagant regard which the younger generation is apt to entertain for contemporary leaders. This fact to a very large extent helps progress in science (in economics at any rate), as it largely depends on a sense of dissatisfaction in the younger generation with contemporary theories and with the achievements of contemporary leaders. Once this extravagant regard is diminished, it is easier for one to see contemporary writings in right perspective, and become aware of the hidden relationships between successful economic doctrines and their environment.

One general characteristic of development in these various fields of economics with which we have been concerned suggests itself. That is the application of the general theory of value to explain and to analyse the more specific branches of economics. The thread that runs through the writings of neo-classical economists in the fields of international trade, industrial relations, poverty and inequality, and public finance is their use of the theory of value. The theory of value enabled them to perceive the consequences of any "natural" or "artificial" change coming over or being introduced into the economy. The theory of value, at the same time, suggested to them norms of behaviour for organised capital, organised labour and the state. The two preoccupations of neo-classical economists, on the one hand, their search for an explanation of how the economy behaves, and on the other, their deep interest in social reform are both firmly held together in the context of their theory of value.

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III. MISCELLANEOUS

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